FINANCIAL TIMES

MONDAY 20 APRIL 2015

WORLD BUSINESS NEWSPAPER

UK £2.50 Channel Islands £2.80; Republic of Ireland €3.00

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Jonathan Ford on why the bank should rein in its empire — PAGE 18

Obama's Kissinger shift
Edward Luce on the president's new realism in foreign policy — PAGE 11

30 years at the FT
Lucy Kellaway on her career and workplace loyalty — PAGE 14

700 feared dead in new Med tragedy

A massive search and rescue operation was under way yesterday in the Mediterranean after as many as 700 refugees were feared dead off the Libyan coast.

Pope Francis called on Europe to act "swiftly and decisively" to address the crisis after what would be the worst disaster of its kind in the Mediterranean. Italian premier Matteo Renzi was also due to hold an emergency meeting of Italy's foreign, defence and infrastructure ministers.

Save the Children is urging EU leaders to convene crisis talks in the next 48 hours to restart the search and rescue operations that controversially ended last year.

Europe urged to act page 6

A boat transporting migrants arrives in the port of Messina in Sicily at the weekend — Giovanni Isolino/AFP/Getty Images

Deutsche Bank prepares spin-off for Postbank in strategic rethink

- 1,100-branch retail network under threat
- Weak markets and tighter rules take toll

JAMES SHOTTER — FRANKFURT

Deutsche Bank is preparing to divest its Postbank retail operation in the latest strategic overhaul by a big global bank in response to sluggish markets and a welter of tough new regulations since the financial crisis.

After months of reviewing its business, Deutsche's management board has whittled down its options for boosting returns to two, both of which involve parting ways with Postbank, according to people familiar with the matter.

The divestment of Postbank, which has 1,100 branches and was bought for €6bn in stages from 2008, would be biggest strategic step yet for Deutsche under co-chief executives Anshu Jain and Jürgen Fitschen. Under the first scenario being considered by the management board, Deutsche would sell shares in Postbank, 6 per cent of which remains listed, within the next 18 months and refocus its remaining own-brand retail business on more affluent clients. At the same time, it would cut assets at its investment bank by €160bn — or roughly a fifth. The most likely areas of Deutsche's investment bank to be reduced are the rates trading business and prime brokerage operation.

Under the second more radical scenario being considered, Deutsche would split itself in to two separate legal entities. One would contain its investment banking, asset and wealth management and global transaction banking divisions. The second would contain all its retail businesses, which would be fully merged and then listed at some point over the next two-and-a-half years.

A number of large investors have previously told the FT they support Postbank's disposal because it generates relatively low returns. Some analysts also have said Deutsche should consider a complete spin-off of its retail banking unit to become a pure-play investment bank, like its US rival Goldman Sachs.

Joseph Dickerson, analyst at Jefferies, said in a recent note that Deutsche "should dispose of its retail unit", adding: "Deutsche is no Goldman Sachs, but the latter is a template."

Retail banking in Germany is less profitable than in many European countries because of competition from a large number of local savings banks and Germans' traditional aversion to higher margin products, such as credit cards.

> Options for boosting returns have been whittled down to two, both of which involve parting with Postbank

Deutsche's management board met last Wednesday, but has yet to decide formally in favour of either of the proposals, and various members have changed positions over the strategic review. The bank's supervisory board is due to discuss the plans on Friday, but it is not yet clear whether the management board will be in a position to recommend one of the two options by then.

Deutsche said: "Strategy 2015+, our three-year plan launched in 2012 comes to its natural conclusion this year. We have been transparent that the bank is reviewing and updating its strategy, and that we will communicate further in the second quarter after decisions are made."

Briefing

▸ Tories invoke Thatcher spirit on Lloyds
David Cameron has sought to invoke the spirit of Margaret Thatcher for the second time in a week by promising that retail investors will take part in a £9bn post-poll sell-off of Lloyds shares. Previous share sales have been to City institutions.— PAGE 17

▸ China eases cash rules to boost economy
China has sharply cut the level of cash commercial banks must park with the central bank in an attempt to free funds for business lending and send a signal of its intent to lift flagging growth.— PAGE 5

▸ Comcast and Time Warner Cable at DoJ
Comcast and Time Warner Cable will hold a meeting with the US justice department to try to allay fears about a merger of the country's two largest cable groups.— PAGE 18

▸ Bank investors threaten pay protest
Big investors want banks to stop paying bonuses based on adjusted earnings that exclude fines and restructuring costs, raising the prospect of protest votes at annual meetings starting this week.— PAGE 18

▸ Soaring dollar to hit S&P 500 earnings
A surging dollar is expected this week to hit some of the biggest US companies, as a fifth of S&P 500 groups report results for a quarter marked by a 9 per cent jump in the currency.— PAGE 17

▸ Lagarde warns Athens over reforms
IMF chief Christine Lagarde has warned Greek finance minister Yanis Varoufakis that patience is running out with the Syriza government, she told the FT.— PAGE 8; WOLFGANG MÜNCHAU, PAGE 11

▸ Cameron intervenes in Gabon oil row
David Cameron has stepped in over a row between the Gabon government and Tullow Oil and Royal Dutch Shell, promising aid for the president's fight against elephant poachers.— PAGE 4

Datawatch

Chinese growth

Source: Thomson Reuters Datastream

Many China watchers believe official statistics may understate the extent of the economy's slowdown and look to alternative indicators such as the change in the amount of electricity produced instead

Support in the City for Labour's 'non-dom' push

There is clear backing in the City for a shake-up of the 'non-dom' tax arrangements targeted by the Labour party for reform, according to prominent contributors to the Financial Times's latest City Network debate, who suggest loopholes should be closed in line with Ed Miliband's policy initiative.

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Anjana Ahuja ▸ PAGE 11

Professional services at the heart of Britain's fall in productivity growth

CHRIS GILES, FERDINANDO GIUGLIANO AND SARAH O'CONNOR

Lawyers, accountants and management consultants lie at the heart of the UK's productivity problem, explaining almost a quarter of a shortfall since 2008.

Financial Times research shows that the stagnation of productivity since the financial crisis is largely explained by just four sectors — professional services, telecoms and computing, banking and finance and manufacturing.

The sectors, which played an important role in improving national output per worker before the financial crisis, have lost their sparkle in productivity growth. Output per worker is measured using the quantity of goods and services produced after adjusting for inflation. In professional services, it is measured by the turnover of companies adjusted for average wage rises in the sector.

The drop in productivity growth is the most pressing deep problem in the global economy, the International Monetary Fund said last week, but is deeper in Britain than any other member of the Group of Seven leading economies.

Since the financial crisis, overall UK productivity has been flat at a level slightly below the 2008 peak.

That streak has been unprecedented in the postwar period, according to the Office for National Statistics. Ed Miliband has also sought to make the problem an election issue, declaring Britain's productivity gap with fellow G7 countries was the country's "biggest economic challenge".

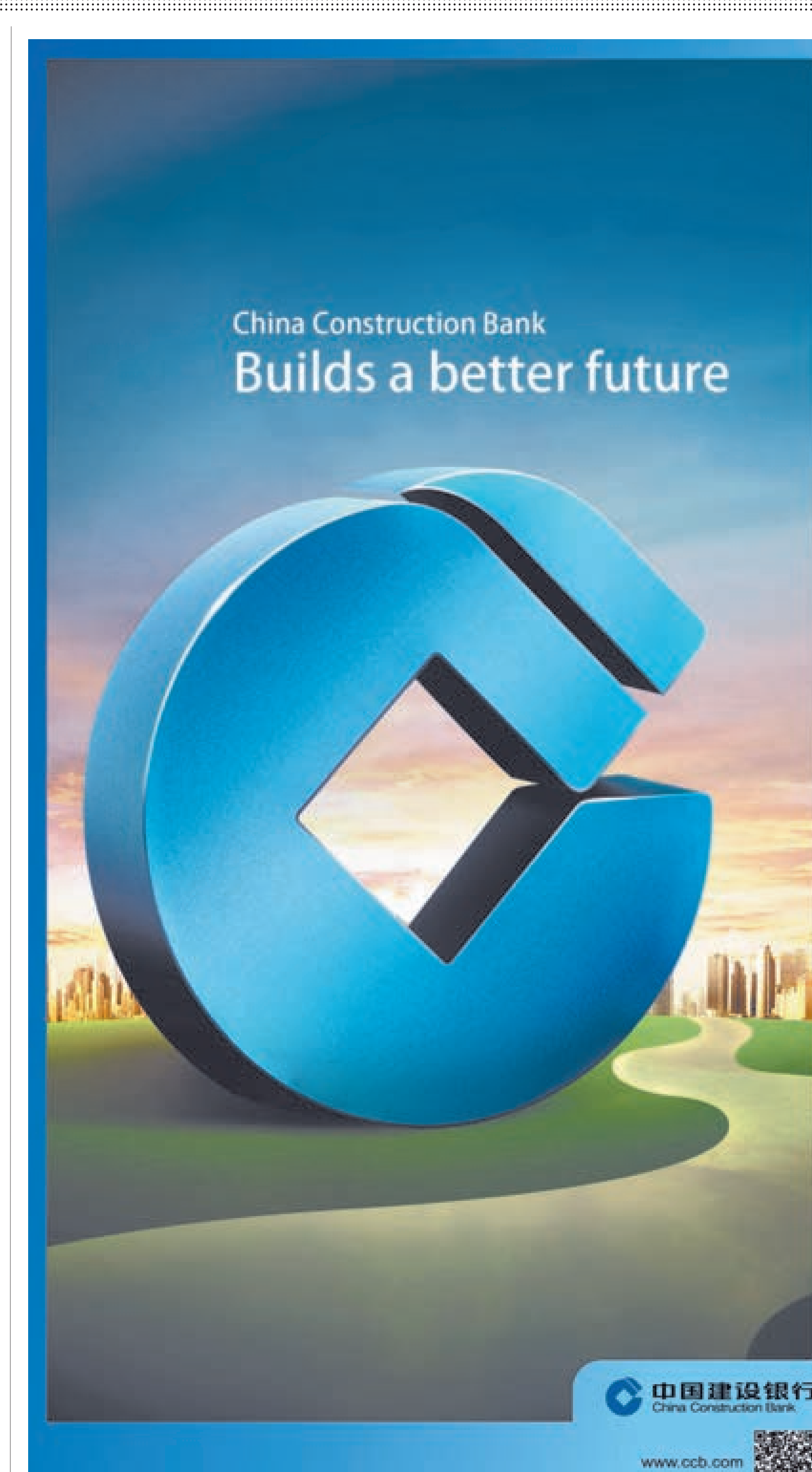
The lack of productivity growth since 2008 explains a decent performance by the UK on jobs and unemployment but also the weakness in living standards, since productivity growth is the ultimate driver of higher incomes.

For many decades before the financial crisis of 2008-09, Britain's productivity tended to grow at a stable pace, whether measured by output per worker, output per hour worked or the efficiency of both labour and capital used. The annual growth of output per worker averaged 1.75 per cent.

The recorded annual productivity growth of professional services — lawyers, accountants and management consultants — stood at 3.8 per cent between 1997 and 2008.

But productivity in professional services has since stalled for many reasons including corporate reluctance to fire staff and subsequent new hires taking time to become more productive.

Productivity puzzle page 3



World Markets

STOCK MARKETS

	Apr 17	Apr 10	%Week
S&P 500	2081.18	2102.06	-0.99
Nasdaq Composite	4931.81	4995.98	-1.28
Dow Jones Ind	17826.30	18057.65	-1.28
FTSEurofirst 300	1607.03	1645.25	-2.32
Euro Stoxx 50	3674.05	3816.76	-3.74
FTSE 100	6994.63	7089.77	-1.34
FTSE All-Share	3778.37	3830.87	-1.37
CAC 40	5143.26	5240.46	-1.85
Xetra Dax	11688.70	12374.73	-5.54
Nikkei	19652.88	19937.72	-1.43
Hang Seng	27653.12	26944.39	2.63
FTSE All World $	286.22	287.51	-0.45

CURRENCIES

	Apr 17	Apr 10		Apr 17	Apr 10
$ per €	1.077	1.063	€ per $	0.928	0.941
$ per £	1.496	1.465	£ per $	0.669	0.682
£ per €	0.720	0.725	€ per £	1.388	1.379
¥ per $	119.065	120.205	¥ per €	128.286	127.736
¥ per £	178.097	176.143	£ index	90.144	90.043
€ index	83.775	84.665	$ index	102.813	103.370
SFr per €	1.027	1.041	SFr per £	1.426	1.435

COMMODITIES

	Apr 17	Apr 10	%Week
Oil WTI $	56.07	51.73	8.39
Oil Brent $	63.71	57.97	9.90
Gold $	1203.35	1207.35	-0.33

INTEREST RATES

	price	yield	chg
US Gov 10 yr	101.03	1.89	-0.01
UK Gov 10 yr	102.83	1.71	-0.02
Ger Gov 10 yr	104.16	0.08	-0.01
Jpn Gov 10 yr	100.94	0.31	-0.03
US Gov 30 yr	98.87	2.56	-0.02
Ger Gov 2 yr	100.59	-0.26	0.00
	price	prev	chg
Fed Funds Eff	0.12	0.11	0.01
US 3m Bills	0.02	0.02	0.00
Euro Libor 3m	0.00	0.01	-0.01
UK 3m	0.57	0.57	0.00

Prices are latest for edition — Data provided by Morningstar

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NATIONAL

General election

Cameron warns over Labour/SNP pact

PM claims Scottish nationalists would 'break up our country'

JIM PICKARD
— CHIEF POLITICAL CORRESPONDENT

David Cameron has stepped up his rhetoric against the Scottish National party, warning a Labour government propped up by Nicola Sturgeon's party would be a "very, very frightening prospect".

Mr Cameron told English voters that the nationalists would seek to divert money from road-building and hospital projects south of the border.

"They would not be coming to Westminster to help our country. They are coming to Westminster to break up our country," he told the BBC's *The Andrew Marr Show* yesterday.

"This would be the first time in our history that a group of nationalists from one part of our country would be involved in altering the direction of the government of our country and I think that is a frightening prospect." His comments came as Stewart Hosie, deputy leader of the SNP, said his party would vote against the Commons measures that authorise spending by government departments, known as "estimates".

"SNP MPs would be entitled to vote against any bit of legislation," Mr Hosie told the BBC. "If we didn't agree with a bit of spending then of course we could vote against that. I certainly wouldn't be happy if Trident was renewed." Senior Tories said the move could lead to political gridlock, allowing the nationalists to "hold Ed Miliband to ransom".

The prime minister was speaking ahead of the launch of the SNP's election manifesto, which will include a pledge to oppose continued UK austerity and signal opposition to any privatisation of the National Health Service in England.

Ms Sturgeon dismissed suggestions her party would seek to use its influence in a hung parliament to promote independence by disrupting UK politics.

"As long as Scotland remains part of the Westminster system, it matters to people in Scotland that we get good decisions out of that system," she told *The Andrew Marr Show*. "I want the SNP to play a positive part in improving politics at Westminster for people right across the UK."

With polls pointing to a hung parliament, Ed Balls, shadow chancellor, hardened Labour's line on potential post-election negotiations as he said that "unambiguously" the party would not do a deal of any kind with the SNP.

Until now Labour's position has been that it would not form a coalition with the nationalists — while leaving open the possibility of a looser "confidence and supply" agreement, where the SNP allows a Labour government to pass its Queen's Speech and Budget but votes independently on other measures.

The polls indicate that Labour faces the loss of about 30 seats in Scotland to the SNP, including that of Jim Murphy, the party's leader north of the border. That would make it much harder to form a government, even with the Liberal Democrats, making the SNP's goodwill potentially crucial.

Ms Sturgeon said yesterday her party would be in a "very, very strong and powerful position" if Mr Miliband was prime minister. She said the SNP's influence would not be limited to a Labour government's Queen's Speech, but instead could be exerted over the lifetime of a parliament. The Fixed-term Parliaments Act meant it was possible to "change the direction of a government on individual issues without bringing that government down", she said.

Editorial Comment page 10

FT debate

Business leaders voice support for Miliband's non-dom reforms

City Network

PATRICK JENKINS — FINANCIAL EDITOR

There is clear appetite for reform of the UK's "non-domicile" tax system among some of the City of London's elite, giving heart to Ed Miliband's plan to scrap the 200-year-old regime.

Despite widespread scepticism in the City about some of the policies of a prospective Labour government, prominent contributors to the Financial Times's latest City Network debate suggest the non-dom rules should be changed and loopholes closed in line with the Labour policy initiative.

Non-dom status allows foreign nationals and even some British nationals to reside in the UK but cite another country as their real domicile, avoiding full UK tax on their overseas earnings in the process.

Alison Carnwath, chairman of Land Securities, thinks the rules are "out of date and should be scrapped", and explicitly backs Mr Miliband's plan.

"The non-dom issue invites criticism and ignites public anger," writes Sir Roger Carr, chairman of BAE Systems. "It is seen as a relic of the past which unfairly favours the few at the expense of the many."

Katherine Garrett-Cox, who heads investment firm Alliance Trust, says: "The rules around non-doms are confusing and clarification would be beneficial for everyone."

The FT City Network is an invitation-only panel of more than 60 leaders from London's finance and business community. Each month the network debates a topical subject.

Labour's plan to abolish non-dom status was portrayed by the Conservatives as another reason for the business world to distrust Mr Miliband. The Labour leader has few fans in the City of London, having pledged to reintroduce a bankers' bonus tax alongside a new "mansion tax" on expensive property.

Many in the City are nonetheless torn in their traditional loyalty to the Conservatives, because of the Tory pledge for a referendum on EU membership. The vast majority of the financial services industry, and large swaths of big business, are convinced that exiting the EU would undermine the British economy.

Mr Miliband's non-dom initiative had been targeted at core Labour voters, angered by uneven tax treatment and the growing gap between Britain's rich and poor. But the sympathetic reception it has received among some City bigwigs is likely to come as a pleasant surprise to Labour policy makers.

Lord (Mervyn) Davies, the banker turned private equity executive who served as trade minister in the last Labour government, told the debate: "London . . . should not be a centre for people who do not want to pay their fair share of taxes. That's why revolutions happen."

Even among City traders, anecdotal evidence suggests that there may be few tears shed over scrapping the regime. One banker recounted in an online comment on a recent FT story how he had worked alongside a colleague who had been born overseas. "This guy paid only a fraction of the tax we all did," the post reads. "There wasn't one person in the team who didn't resent having to 'cover' for his lost taxes. And that is a trading floor of an investment bank! This measure will have widespread support."

Non-doms themselves are mostly hostile to the planned changes. Some of the non-dom members of the FT City Network declined to participate in the debate, for fear of appearing self-serving, but in private some of them expressed enthusiasm for reform.

One described the rules as "anomalous" in treating the foreign investments of non-doms differently from foreign investments by "normal" British nationals.

There was not universal support for changes to the non-dom regime in the debate. Several contributors argued that London's receptiveness as a global financial centre could be put at risk.

Seraina Maag, chief executive of Europe, Middle East and Africa at insurer AIG, said: "Attacking non-doms is clever politics for Labour but only confirms the perception that a Miliband government would not be protective of the City's competitive advantages.

"The growing French community in London is evidence of what happens when a government fails to create a business climate attractive to talent."

Alexis de Rosnay, head of broker Canaccord Genuity, also likened the clampdown on non-doms to French president François Hollande's introduction of a 75 per cent income tax for income above €1m. "The non-dom issue . . . is a very handy distraction for the Labour party: it is sensitive, symbolic, difficult to defend, difficult to really evaluate and further ignites the image of the current government's 'Friends of the Rich' image."

Sir Win Bischoff, FRC, warned the proposal would affect "the prosperity of the country, not just the City".

"Does it make sense to abolish it entirely? No, in my view. Could we prosper without it? Yes, but why do something without having a far better idea of its impact, and its costs and benefits?"

The sympathetic reception to non-dom reform proposals among City leaders will come as a welcome — and surprising — boost for Labour — Dan Kitwood/Getty Images

'What is important is people pay the full tax in whichever country they live and work in'
Katherine Garrett-Cox

'The current system seems outdated but we need to carefully evaluate the new alternatives'
Lord Davies

FT **Forum online**
For a full transcript of the debate on non-doms
ft.com/citynetwork

Poll

Leading two parties neck and neck on 31% among student voters

HELEN WARRELL —
PUBLIC POLICY CORRESPONDENT

Labour and the Conservatives are neck and neck among university students, according to a new poll that puts both the main parties on 31 per cent ahead of next month's general election.

The survey of more than 13,000 final-year students at 30 universities, conducted by the recruitment analyst High Fliers Research, found that the Greens were the next most popular party, with 25 per cent support, followed by the Liberal Democrats on 6 per cent and the UK Independence Party on 1 per cent.

Support for the Lib Dems has slumped since the same survey in 2010, when 23 per cent of students intended to vote for them. Many turned away from the party after it broke its 2010 election pledge not to increase tuition fees.

The poll also found that political leanings varied according to the university. Support for the Tories was strongest at Imperial College London, the London School of Economics, Durham, Bath, Exeter and Loughborough — a key marginal seat held by the Tories' education secretary, Nicky Morgan. Oxford, Cambridge, Warwick, Liverpool, Lancaster, Manchester and Sheffield universities were all dominated by Labour voters.

The analysis suggests that students intending to vote Tory are most likely to have attended a fee-paying school, are the most confident about finding a graduate job, and plan to work in management consulting, investment banking, finance or marketing. They also have the highest salary expectations, anticipating an average of £25,500 on graduation and £44,900 within five years.

By contrast, student Labour supporters are largely from state schools and plan to work in areas such as teaching, the media and the charity or voluntary sector. On average, they expect to earn about £3,000 a year less in their first graduate job than their Tory peers.

Martin Birchall, managing director of High Fliers Research, drew attention to the "huge surge" in support for the Green party on campuses across the country. The Greens commanded only 6 per cent of the vote among final-year students before the last election.

Separate research published last year by an Oxford university politics professor and the Higher Education Policy Institute think-tank predicted that students could decide the outcome in at least 10 constituencies. The analysis suggested that the Tories stand to lose six seats to Labour as a result of the student vote, but may win two from the Lib Dems. Labour was also projected to win two seats from the Lib Dems, the study suggested.

According to the National Union of Students, the rising cost of living is by far the biggest issue for students, with 80 per cent listing it as their greatest concern. Healthcare and job opportunities were also identified as important factors in deciding who to support.

However, it emerged this week that 800,000 people, including large numbers of students, had disappeared from the electoral roll since the last election as a result of changes to registration that disproportionately affect those who live in communal accommodation such as halls of residence.

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HMRC. Tighter measures

Political consensus emerges on tax avoidance crackdown

As election looms, rivals find common ground on policies to close corporate loopholes

VANESSA HOULDER

Business is braced for a stack of new anti-avoidance measures after the general election next month as politicians compete on promises to raise billions of pounds from closing loopholes.

A cross-party consensus is emerging over the scope for a renewed crackdown. Last week Vince Cable, the Liberal Democrat business secretary, said that "the next government, of whatever persuasion, is going to be pretty brutal on abusive tax avoidance".

Chuka Umunna, the shadow business secretary, told a conference that constituents were "very, very angry" about avoidance by large companies. Nick Boles, Conservative business minister, said there was "further to go" on tackling avoidance by global corporations.

Many multinationals, particularly in banking and utilities, are worried by the tone of the debate, which they see as hostile and divisive. They fear poorly designed measures will make the UK less attractive to investors.

But some smaller companies are likely to cheer another crackdown. The British Chambers of Commerce said last month that its members were "frustrated by the small number of their competitors who embark on expensive and complex tax avoidance procedures designed to circumvent the spirit, if not the letter, of our laws".

An alliance of 17 campaign groups and development charities has drawn up a "tax dodging bill". This list of anti-avoidance measures aimed at raising £3.6bn of tax in the UK and more overseas has been welcomed by the Greens, Labour, SNP and Plaid Cymru.

Jenny Ricks, head of campaigns of ActionAid UK, one of the groups, said: "After the election our activists will be keeping up the pressure on the new parliament to deliver — and ensuring the changes will make tax fairer for developing countries as well as the UK."

The Tories, Liberal Democrats and Labour say they want to raise an extra £5bn, £6bn and £7.5bn a year respectively from tackling avoidance and evasion. They have given few details, though Labour has said its targets include private equity funds, hedge funds, quoted Eurobonds, the "shares for rights" scheme, disguised self-employment and the use of dormant companies.

These targets may appear credible given that measures taken by the coalition to tackle aggressive tax planning, avoidance and evasion are forecast to raise up to £7.6bn in additional revenues in 2015 and 2016. But these figures are flattered by a temporary surge in payments from users of tax avoidance schemes who are being forced to pay money upfront.

HMRC estimates tax avoidance costs just £3.1bn a year, so practices seen as legitimate may be targeted

Official HMRC estimates suggest that avoidance costs just £3.1bn a year, in a sign that politicians would need to target practices seen as legitimate to raise significant sums. One likely source of extra revenue is changes to the international corporate tax rules being drawn up by the Paris-based Organisation for Economic Co-operation and Development. Its conclusions were partly pre-empted with this month's "diverted profits tax" that penalised multinationals putting taxable profits in low-tax countries.

But key aspects of the tax system were not covered by this tax, including the tax-deductibility of interest payments. The CBI employers' group responded to the Lib Dem manifesto, which suggested changes, saying: "Further restrictions on interest deductibility when it is already subject to many anti-avoidance measures risks damaging the competitiveness of the UK to attract capital for investment projects."

The next government will have to find ways to tighten the rules that do not threaten investment. If it wants to close the tax gap, it will also need to focus on small businesses and losses from illegal activity — which are five times greater than those from avoidance.

NATIONAL

Productivity puzzle holds solution to cuts

Output per worker has stalled since the financial crisis; whether it rebounds will be crucial for the next government

CHRIS GILES — ECONOMICS EDITOR

Britain's advanced economy and comfortable living standards have been built on productivity growth. Ever since the industrial revolution, economic growth has rested on better use of buildings and machines and improvements in the level of output for every hour worked.

According to economists, little is more important than the efficient use of labour and capital. Over a decade ago, Paul Krugman, the Nobel Prize-winning economist, famously said: "Productivity isn't everything, but in the long run it is almost everything."

Britain has a deep problem. Before 2008, an apparent iron law of the economy was that output per worker — measured by the amount of gross domestic product generated — grew at a steady annual rate of roughly 1.75 per cent a year. Since the financial crisis, productivity has stalled, whether measured by output per worker, output per hour or a composite allowing for buildings and machinery.

Weak productivity growth is not solely a problem for the UK. The International Monetary Fund said this month that "productivity has been increasing at modest rates across all major advanced economies", but Britain's Office for National Statistics has noted that the UK's productivity slowdown is almost three times as great as in the rest of the Group of Seven.

Understanding why is critical in view of next month's general election. The Office for Budget Responsibility calculated in December that if productivity growth rebounded to the rate of the early 1980s, so great would be the boost to the economy that no further government spending cuts would be needed. Conversely, if productivity continued to stall, the parties' promises on tax and spending would be overwhelmed by budgetary crises over the next five years.

Theories have come and gone over the causes of the productivity decline, with little agreement save for the fact that there is unlikely to be one cause. The Financial Times' analysis has produced a detailed examination of the sectors of the UK economy that have contributed, both before and after the recession.

Before the financial crisis, some sectors of the economy punched well above their weight in terms of productivity. Between 1990 and 2008 manufacturing, for example, contributed about a third of total productivity improvement for a sector that produced only a little over 10 per cent of output. Finance generated 25 per cent of the productivity improvement while contributing just 8 per cent to the economy. Lawyers, accountants and similar professions accounted for 15 per cent of productivity growth for a sector that accounted for only about 6 per cent of output, with telecommunications and computing contributing a similar amount.

In contrast, the oil and gas industry was a constant drag on productivity from the mid-1990s as it took more effort and people to extract the dwindling supplies of oil from under the North Sea. The education sector also held back productivity growth.

After 2008, some industries — in particular construction and the retail sector — were hit hard as demand dropped off suddenly while employment held up. But productivity growth has bounced back as companies have laid off staff and consumer spending has recovered.

The oil and education sectors had weak productivity growth both before and after the crisis, and so have not contributed to the recent puzzle.

The FT's model, which estimated the contribution of each sector to the drop in productivity growth, found that four sectors — the professions, telecommunications, banking and manufacturing — account for 75 per cent of the drop in labour productivity growth.

The reasons vary. Lawyers, accountants and management consultants account for nearly a quarter of the drop in productivity growth, mainly because they had been so important in driving it before. Output grew over 7 per cent a year before the crisis, but only 2 per cent afterwards, while trends in hiring did not change nearly so much. The same holds in computing and telecommunications.

In banking, output has declined since 2008 as balance sheets have shrunk and activities such as selling personal protection insurance have ceased, while staffing has continued to rise.

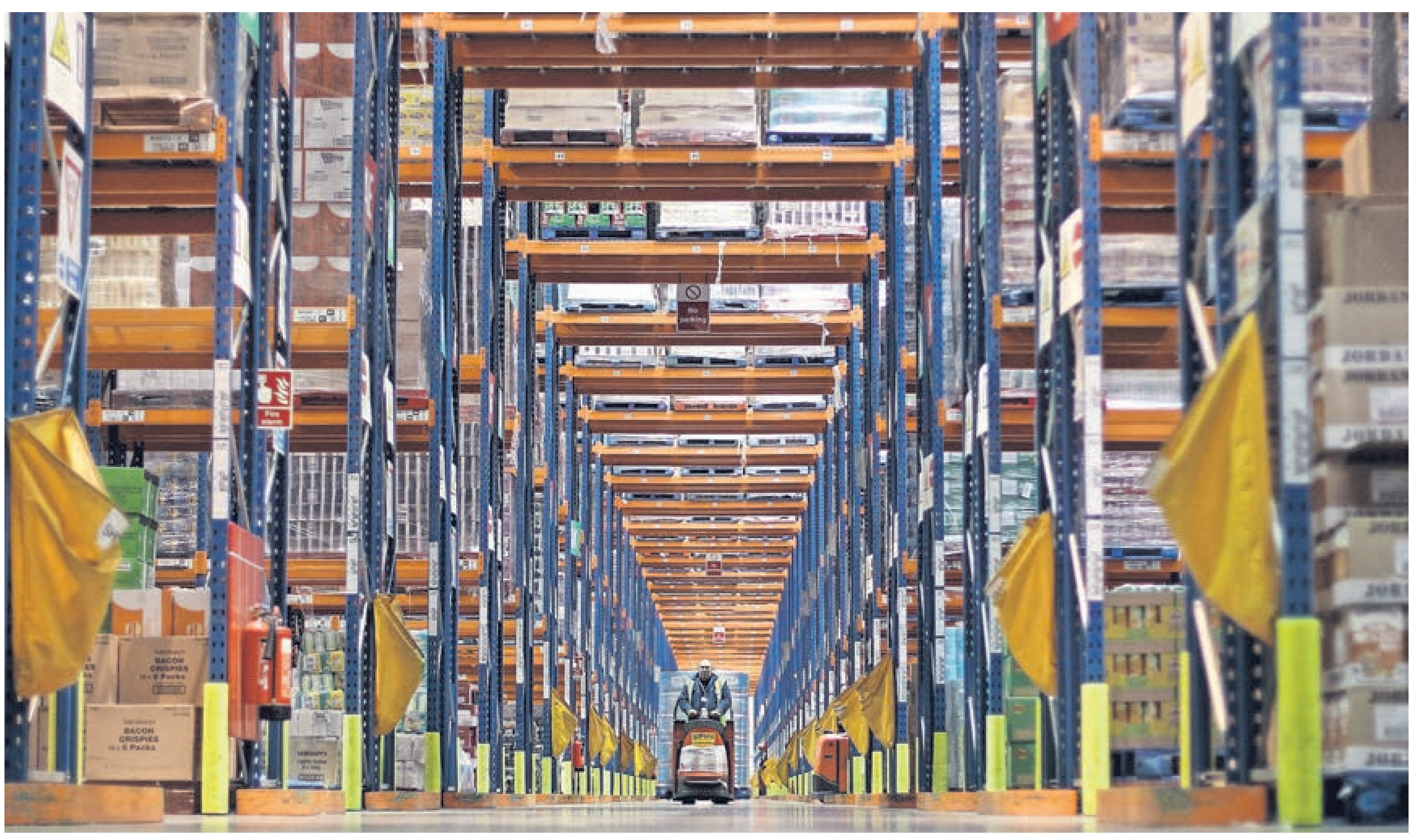
Productivity crisis www.ft.com/video

Case study
Consulting group survives scars

LCP Consulting, a medium-sized company that helps retailers manage orders and deliveries, has bounced back from the recession, doubling its staff and lifting turnover.

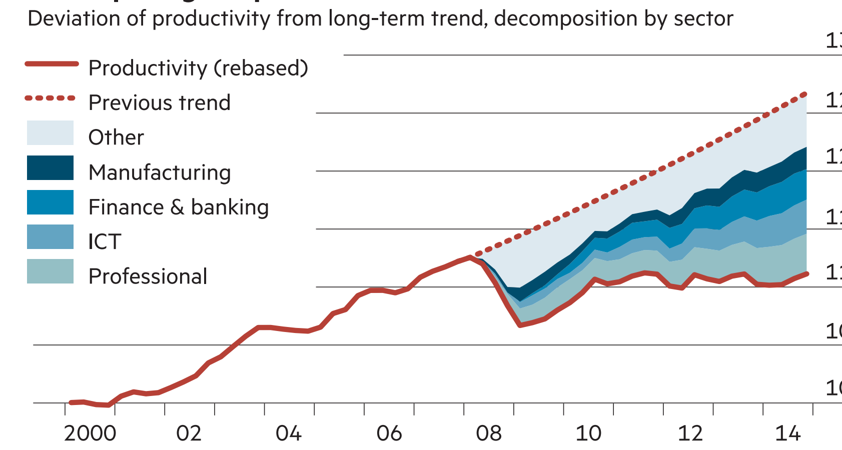
But John Lockton, managing director, believes the recession has left long-lasting scars. The company laid off about 40 per cent of its consultants in 2008 and 2009. Since then, it has hired new professionals but Mr Lockton said it has taken time for them to become as productive as the workers who left. *Ferdinando Giugliano*

Industrial inaction Stacking up trouble

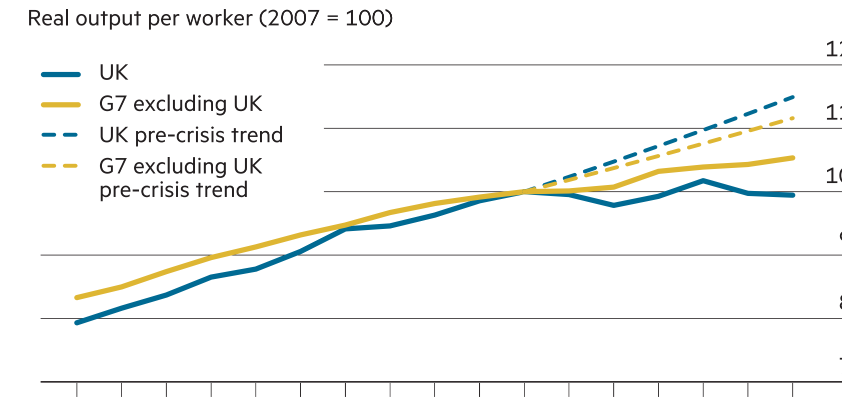


Dan Kitwood/Getty Images

Recomposing the puzzle
Deviation of productivity from long-term trend, decomposition by sector



Britain's productivity problem
Real output per worker (2007 = 100)



Sources: ONS, FT research

Theories abound over the causes of the UK's slump in productivity since the financial crisis. Here are four possible explanations *By Ferdinando Giugliano*

1 It is not as bad as it seems

Solving the "productivity puzzle" means explaining why output per hour worked in the UK is more than 15 per cent below where it would have been if the pre-crisis trend had continued. But there may be problems in the way we measure both today's productivity and the pre-crisis trend.

For a start, it is possible that output per hour today is higher than we think. Estimates of gross domestic product are often revised over time, and the Office for National Statistics has tended to err on the side of caution. We may also be exaggerating the number of workers, for example if some of the growing number of self-employed are actually not working.

It is equally conceivable that we were overestimating productivity growth before the crisis. In the oil and gas sector, the depletion of the most accessible basins means it will take more workers to extract the same amount of natural resources.

In the financial sector, some of banks' output before the crisis was the result of too much risk-taking, which has proven unsustainable.

Adjusting for these measurement errors goes some way in reducing the gap, but economists believe it is simply too large for this to be the whole story.

2 Workers stealing the robots' jobs

Some economists, including John Van Reenen at the Centre for Economic Performance, believe the productivity puzzle is a consequence of Britain's slow recovery.

They argue that both the government and the private sector cut back on investment during the crisis, forcing workers to operate with fewer and worse machines than might have been the case.

Furthermore, the downturn prompted workers to accept lower wages as they feared being unemployed at a time when labour demand was scarce. Companies preferred to employ more workers rather than invest in new capital. The combined effect was a collapse in productivity.

The problem with this argument is twofold. For a start, other studies, including one by Jonathan Haskel and his colleagues at Imperial College, have found that the slowdown in investment in new machines and equipment is insufficient to explain the slowdown in productivity growth.

It is also possible that, as productivity declined, companies were forced to cut back on the wages they were paying. In that case, it was low productivity that led to low pay, not the other way round.

3 Credit where credit is not due

The financial crisis has had deep consequences for the functioning of the financial system. The Bank of England lowered interest rates to 0.5 per cent in an attempt to boost the economy. Banks became more risk-averse and less willing to extend credit to new companies. They were also reluctant to stop lending to companies in trouble, instead "extending and pretending" allowed them to avoid having to recognise losses on their books.

Ben Broadbent, deputy governor of the Bank of England, believes all these factors may have led to a fundamental misallocation of capital in the economy, with less efficient businesses reaping the funding that should have gone to more productive start-ups. The bank's ultra-cheap borrowing costs had the unwarranted consequences of keeping "zombie" companies alive, preventing the kind of "creative destruction" that can help revive an economy during a crisis.

Proponents of this argument point to the level of company liquidations in the UK, which has remained unusually low throughout the crisis and to the number of lossmaking businesses, which increased significantly. However, by the Bank of England's own measurement, this theory can only explain less than a third of the productivity gap.

4 The era of inventions is over

Prof Haskel and his colleagues believe that the productivity puzzle cannot be explained as the consequence of insufficient investment. Instead, they argue the British economy has become less efficient at turning labour and capital into productive output. As economists would put it, Britain has seen a collapse in the rate of growth of "total factor productivity".

Prof Haskel admits it is impossible to pinpoint one factor to explain why the economy has become less efficient. Instead, he makes several conjectures. One is the slowdown in the amount of research and development undertaken since the 1970s compared with the immediate postwar period. As R&D's effect on productivity has a long lag, what happened 40 years ago may help to explain the productivity problem Britain faces today.

This argument fits broadly into the view that the pace of innovation worldwide is slowing. As the information and communications technology revolution runs out of steam, economies are unable to generate inventions that produce large gains in efficiency. But not everyone is convinced: "I do not believe we have become 15 per cent stupider," said Prof Van Reenen. "In fact, with scientists working on artificial intelligence and robotics, we may be on the cusp of a number of major breakthroughs".

Interview. **Christine Hodgson**

Careers guidance back on the syllabus after four-year hiatus

Capgemini UK chief to chair body that aims to revive a service seen as on 'life support'

ELIZABETH RIGBY — DEPUTY POLITICAL EDITOR

Nicky Morgan came under heavy fire from MPs in January over the coalition's inadequate careers service provision in schools, where receptionists were trained to give teenagers careers advice in a system that was "not mandating any standards whatsoever".

Three months on from the education secretary's mauling in front of the education select committee, the government is rolling out a new system that Ms Morgan hopes will begin to address critics' concerns.

The independent careers advice body will be chaired by Christine Hodgson, executive chair of Capgemini UK. It is designed to fill the gap left in 2011 when Michael Gove, the former education secretary, scrapped the careers service body Connexions and transferred its responsibility to schools — without providing extra cash.

Ms Hodgson — who wants Capgemini to be a matchmaking service that links employers to schools — was appointed by Ms Morgan in December to set up an employer-led careers advice company.

It aims to inject vigour into a careers system that in 2013 was described by the CBI employers' group as being on "life support".

Ms Hodgson plans to provide students with broad career advice — including options outside their local areas if they want to explore a career in the City or industry. A big focus will be promoting "Stem" subjects (science, technology, engineering and maths) in schools in an effort to help plug a yawning skills gap.

"A number of organisations have already come to us and said, this can be a vehicle to help get the message out," Ms Hodgson says.

"At the moment, you've got no end of willing employers who are happy to go in and to help schools. At the other extreme, you've got all these schools that are either inundated with offers of support, or they have nothing. There's no consistency and there's inconsistent coverage.

"I'm really interested to start with some really cold spots where there has been very little employer contact in schools, some of the coastal towns, some of the rural areas," she says.

"The reason I want to do both is I want to learn from where activity is happening as to what works well and what doesn't. I like the idea of cold spots because I want to think about how we are going to attract employers to go into an area where they don't have activity, how are we going to engage SMEs? If we can co-ordinate it, will it make it easier for schools in those areas?"

But questions remain over how effective Ms Hodgson's "umbrella organisation" can be if individual schools lack dedicated career advisers and a proper system of monitoring careers advice.

Ms Hodgson believes all schools should have a dedicated careers adviser, but the education secretary remains unconvinced. "There has never been a golden age of career advisers, so bringing back a whole tier of management is not necessarily the right thing to do," Ms Morgan says.

There are also subtle differences between the pair over whether the government should mandate and monitor standards for career advice. Ms Hodgson thinks it "would be taken much more seriously if schools are measured on it".

But the education secretary, brought in to soothe relations with the teaching community after four years of war with Mr Gove, is reluctant to stoke more tension by saddling the profession with more bureaucracy.

"I go back to 900 teachers I have spoken to since I took on this role," Ms Morgan says. "They are all saying trust us as professionals . . . if I put in a whole new tier of sanctions, it cuts across the message I am getting from teachers."

Labour, meanwhile, has committed to investing £50m to guarantee face-to-face advice from careers guidance professionals should the Labour party win next month's election. Labour claims the funding — to be taken from universities' existing outreach spending — will be used to ensure trainer careers advisers are available to all pupils, from 11.

How careers advice is delivered in schools in the coming five years will depend on who wins the general election — Ms Hodgson gave this interview before the dissolution of parliament.

Labour said that it had no plans to scrap the venture, acknowledging that schools did need more support in linking up to business.

"If you think of schools as a three-pronged plug socket, and you think of the world of work as a nine-pronged plug, you need a least one adapter to connect the two," Ms Hodgson says.

"And if this organisation can be part of creating that adaptor, then it will be a really valuable organisation."

Christine Hodgson, executive chair of Capgemini UK — Luke MacGregor

Energy

PM steps into oil disputes with Gabon

Cameron writes to President Bongo after assets are expropriated

PEGGY HOLLINGER AND GEORGE PARKER

David Cameron has intervened in an escalating row between UK oil companies and the government of Gabon after the petroleum ministry expropriated assets from the explorer Tullow Oil and threatened Royal Dutch Shell with a fine for non-payment of back taxes.

The prime minister has written to the president of the African country, Ali Bongo Ondimba, after interventions from the Foreign and Commonwealth Office over the past year failed to resolve the dispute. In a letter promising aid for the Gabonese president's battle against the poachers decimating the country's unrivalled population of forest elephants — a campaign supported by Prince William — Mr Cameron stresses the importance of Britain's relationship with the resource-rich country. The prime minister says he hopes the "companies concerned and the Gabonese government can come to an agreement" soon.

The UK government has encouraged investment in Gabon since President Bongo was elected to succeed his father, Omar Bongo, in 2009. Though his election was disputed and sparked protests, Mr Bongo initially won international praise for promising to eradicate the corruption that had become a way of life under his father; Omar Bongo was one of Africa's richest men and his hold on power lasted 42 years. Gabon, with just 1.7m people, was ranked the UK's 94th largest import partner in 2013, up from 143rd in 2012. Foreign direct investment in 2013 was $856m.

But recent actions by the oil ministry have raised concerns in London over the climate for business in Gabon, in particular as the country seeks investment to develop offshore reserves.

Early last year the oil minister, Etienne Ngoubou, locked Tullow Oil out of negotiations on the renewal of a licence on the onshore Onal field, in effect expropriating the UK company's 7.5 per cent stake. In an attempt to get its stake back, the oil company has twice offered better terms, even reaching an agreement in principle with the oil minister. However, ministers are yet to give their final approval.

"We have been assured by the government that our contract will be honoured," Tullow told the Financial Times. "However, we are very concerned by the delay. Sanctity of contract is always vital but it is even more important at this critical and difficult time for the oil and gas sector to ensure future investment."

Aidan Heavey, Tullow's chief executive, has in the past made donations to the Conservative party. But the company said it had not asked Mr Cameron to write to Mr Bongo.

Mr Ngoubou revealed this month that he was considering levying penalties of tens of millions of dollars against Royal Dutch Shell for back taxes. Shell declined to comment. Gabon's oil ministry failed to respond to requests for a comment.

The dispute comes as President Bongo faces a difficult election next year, with protests and strikes paralysing the economy in recent months. Revenues from Gabon's maturing onshore oilfields were declining even before the recent fall in the oil price, and its budget deficit is widening.

An FCO official said the UK would support British businesses and hinted that the oil ministry's actions could damage the country's investment potential. "Foreign investment in sectors such as hydrocarbons and the extractive industries can play a vital role in boosting the development of countries such as Gabon, lifting people out of poverty.

"We seek to encourage governments to improve the ease of doing business, to promote greater transparency and to boost the attractiveness of markets to investment by UK businesses."

Infrastructure

Dubai airport chief backs Heathrow over third runway

JANE WILD AND MALCOLM MOORE

The head of Heathrow's biggest rival has criticised the political deadlock over building another runway in Britain's southeast, condemning the failure to expand the west London airport as "scandalous".

Paul Griffiths, chief executive of Dubai International airport, which overtook Heathrow in January to become the world's busiest airport handling international passengers, said politicians should not stand in the way of big decisions on infrastructure.

"Heathrow's problem is, it is politically poisonous. All the main parties can agree on one thing, which is that expanding the runways makes them politically unelectable," he said.

"There is a cost to not being proactive and allowing that to be held hostage to political whim. It is just scandalous."

Britain needed to set up an independent body to push through key infrastructure projects by achieving cross-party support, removing such decisions from the short-term political cycle, Mr Griffiths said. "Nothing will change until they sort it out and make infrastructure investment independent of the political cycle."

Aviation was a key driver of economic prosperity, he said, which was recognised in the United Arab Emirates but "is lost in the political mire in other countries — and the UK leads the way in that".

However, he conceded that expansion at Dubai airport was easier than in the UK, where many people live around Heathrow, and that concerns about noise and the environment had to be addressed.

But John Stewart, who chairs Heathrow Association for the Control of Aircraft Noise, a group that has campaigned against building another runway at Heathrow, said decisions on expansion had to be made democratically and could not be divorced from politics.

"It's naive and unrealistic to take something like aviation policy out of the political arena," he said. "A project as big as a third runway at Heathrow is always, inevitably in a democracy, going to be a political decision."

The comments by Mr Griffiths, a Briton who has held senior management roles at Gatwick airport and Virgin Atlantic, indicate the level of frustration at Britain's failure to increase its airport capacity, a debate that has run for some 50 years.

Many in the aviation industry are sceptical, as Mr Griffiths is, that action will come soon, despite the government's independent airports commission being due to report after the general election on where a runway could be built.

Despite the scepticism, Gavin Hayes, director of Let Britain Fly, a business group that has lobbied for airport expansion, said manifesto commitments from the political parties showed the mood was shifting towards making a decision on expansion.

"I'm confident that politicians will get on and make a quick decision once the airports commission has published its final report," he said.

There could be a case for setting up an infrastructure body, he added.

"If the airports commission is successful in breaking over a half a century of political procrastination on airports expansion there might well be a case for perhaps setting up a permanent infrastructure commission."

Fitness. Consumer trends

Tech companies help gyms limber up for reform

Consumers demand thrifty options or specialist workouts, challenging existing models

AVANTIKA CHILKOTI

On a sunny midweek afternoon, there are just two personal trainers instructing clients to lunge and lift in the small studio run by No1 Fitness near London Bridge.

"It's like a family gym, everyone knows everyone," says Harry Thomas, 27, who founded the business six years ago.

No1 Fitness, which charges clients as much as £3,515 for a 12-week programme of training, has just 260 members at its three studios. But Mr Thomas estimates that 30 more have joined in the past three weeks, since the business was listed on ClassPass, a US start-up that charges a flat fee to let users sample a series of studios.

The intermediary website, which launched in London last month, is among new businesses changing the face of the £2.7bn market for health and fitness clubs at a time when consumers are demanding variety, flexibility and economy in their workouts.

"New technology puts the power into the users' hands," says David Minton, director at The Leisure Database Company. "We just haven't been in that position before and what we are finding is that the consumers love it."

His comments came as Sir Richard Branson sold almost 80 per cent of his Virgin Active gym business this week to Brait, the investment group that is backed by South African retail billionaire Christo Wiese. Including debt, the deal values Virgin Active at £1.3bn.

With the UK economy returning to growth, groups in the leisure industry are eager to tap into additional consumer spending. But the UK's consumers are now demanding either thrifty options or fun specialist workouts, challenging the models offered by traditional gyms, such as Virgin Active and LA Fitness, which have long signed members up on long-term contracts to single clubs.

Some 32 per cent of gym users in the UK prefer to pay per visit, according to researcher Mintel, while 39 per cent would like to pay a flat annual fee and 22 per cent would like to pay only for the facilities they use.

Yet, the internet and social media are helping consumers become better informed and new businesses are acting as middlemen, linking users with a range of small studios. Homegrown start-ups, such as Payasugym, allow consumers to buy shorter-term entry to studios around London at steep discounts, while passes to some of the UK's biggest gyms, such as LA Fitness, regularly feature on Groupon, the deals site.

Healthy outlook: with the economy picking up, leisure industry groups are eager to tap into increased consumer spending

"In a lot of sectors we can make more intelligent choices about how and where we spend our money," says Humphrey Cobbold, chief executive of Pure Gym, a budget operator that claims to be the country's biggest gym, with more than 500,000 members. "That does manifest itself in people having more control over their expenditure."

Alongside frugality, flexible fitness options are also offering variety and entertainment, as social media drives the workout trend.

Far from the oversized grey gyms of the past, British consumers pick from a range of fitness fads, from celebrity endorsed Barry's Bootcamp, originally a US craze, to early morning fitness raves, such as Morning Gloryville, which launched in August 2013 and allows crowds to dance off the calories.

"In urban areas, where lifestyles are fast and furious, the two elements are the flexibility and the variety," says Jamie Ward, who founded Payasugym. "People want experience as they are working out."

While fending off competition from new budget options, which offer no-frills gyms open 24 hours a day, traditional mid-market outfits such as Fitness First are also trying to cater to the new demands of the UK consumer — although many in the industry dismiss the new online start-ups.

"We don't see them as competition at all, they're really small," says Fitness First's Mark Hutcheon.

Hoping to move into the premium segment, the group is investing £86m in rebranding and hiring some 250 personal trainers, and it now offers one, three and six-month memberships. Plans for new sites include athletics tracks and virtual reality areas, where exercise can feel like acting out a video game.

'It's forcing the gym sector and the owners in it to radically change the model'

Mark Hutcheon
Fitness First

"There is so much happening around the gym industry," Mr Hutcheon says. "It's forcing the gym sector and the owners in it to radically change the model."

Martin Long, chief executive of LA Fitness, says: "We're not a slumbering giant that is ignorant. There's no way an industry can stand still, there will always be new fads."

Only 14 per cent of UK gym users believe it is worth joining a well-known gym group for the experience it provides, according to Mintel. The researchers point out that large-scale gym operators have opened few new sites during the past two years and average revenue per member has been flat, at £40 in 2009 and £42 in 2014 — but these groups still command most of the market.

"I don't think the big gyms are going to die off," says Luke Mohr, founder of Go Mammoth, which runs sports leagues and fitness classes. "The market is just going to become slightly broader."

Temporary workers

Tough lesson for teaching assistant highlights employment practices of payroll agencies

MICHAEL POOLER

When the teaching assistant opened his first payslip from a new job in an east London secondary school, he had an unpleasant surprise.

Based on the £90 daily rate the employment agency had told him, a back-of-the-envelope calculation would suggest fortnightly take-home pay of about £730. Instead he ended up with £665.82.

What he did not know was that the daily rate did not represent his gross wage, as payroll contributions by the employer were also included.

"The payslip said the employer's national insurance and pension contributions had been deducted, which I assumed was a mistake," he said. "But the agency said that's just how umbrella companies work, even though they didn't mention it when I accepted the job. It felt like I paid their share."

Passing on such costs is standard practice among so-called umbrella companies, outsourced payroll providers that act as employment intermediaries between recruitment agencies or hirers and freelancers and short-term contractors. They also take a margin of up to £25 a week to cover costs.

Use of the arrangement has expanded as the pool of temporary workers in the UK — 1.68m people in the three months ending February — grows at a faster rate than permanent jobs. It allows organisations with seasonal fluctuations in needs to keep a flexible workforce without the burden of taking on employees.

"For somebody working a series of short assignments, it ensures their tax and admin is dealt with properly and they get full employment rights," says Julia Kermode, chief executive of the Freelancer & Contractor Services Association, which represents 50 payroll companies that employ about 95,000 people. But critics say its proliferation in lower-paid segments of the workforce — where holiday pay is often "bundled up" into wages — is leaving some worse off, casting doubt on government claims the recovery is spreading. While official statistics are not kept on numbers employed this way, construction union Ucatt says the practice is widespread since the government introduced measures last year to fight bogus self-employment in the sector.

The union claims "tens of thousands" of construction workers have been forced on to such contracts, often without the pay rises necessary to offset the associated costs, with the result that "take-home pay has plunged in some cases by up to £100 a week".

Ms Kermode acknowledged some instances of unfair practices. "Employees should not be receiving less pay for the same work than they were when self-employed. Agencies sometimes don't understand how it works . . . it's fundamentally wrong that people are unaware of what they are earning."

However, recruitment sector figures say a few rogue operators should not tarnish what is an otherwise legitimate option for professional contractors that do not want the hassle of dealing with tax, invoices and accounts that come with operating as a sole trader or through a limited company.

"Umbrella models offer a range of benefits and rights including holiday pay which [self-employed] workers wouldn't normally get," says Kevin Barrow, partner at law firm Osborne Clarke.

"In many cases, they get a higher take-home pay than normal agency workers. Travel, subsistence and accommodation expenses can be paid tax free . . . [which] can reduce the headline rate of tax and NI from 45 to 30 per cent, depending on the individual".

Yet a perception that some companies abuse expenses to limit tax bills has led to a clampdown on such perks. George Osborne, the chancellor, pledged in the Budget to restrict tax relief for temporary workers, which the Treasury expects to raise £635m by 2020.

In a bid to prevent workers feeling cheated on pay day, employment intermediaries will also be forced to be more upfront about how they operate.

"Transparency is key. If the model isn't explained to people there can be a lot of confusion," says Colin Howell, chief executive at Crystal Umbrella and Atlantic Umbrella, which together have 2,000 IT and healthcare professionals on their books and guarantee the national minimum wage to employees between assignments for up to 12 weeks.

For the teaching assistant, however, knowledge of the intricacies came too late. "When I called the umbrella company they said I should have negotiated the rate of pay differently to take into account all the deductions."

INTERNATIONAL

Dubai hopes to be investors' bridgehead for Iran deals

Prospect of end to nuclear sanctions spurs emirate to prepare for gold rush

SIMEON KERR — DUBAI

When a Dubai-based financier tried to entice a US food manufacturer to set up a joint venture to produce and distribute products in Iran several months ago, the company stonewalled.

But when news broke last month that the nuclear powers had reached a framework agreement with Tehran on its nuclear programme, the producer of household name products immediately got back in touch. "They were straight back to me, asking for proposals as soon as possible," the financier said.

The prospect of an opening in Iran is triggering a nascent gold rush for access to a market of 77m people with oil resources and pent-up demand — with European and US companies clamouring for access. Dubai hopes to establish itself as a bridgehead should diplomatic progress lead to an easing of sanctions.

The emirate has the infrastructure and relaxed lifestyle to attract multinationals seeking to enter Iran, as well as a large Iranian expatriate population and United Arab Emirates nationals who trace their family roots to Persia.

"Iran is on our doorstep — we have to be there, it could be a great game changer," said Marwan Shehadeh, group director for corporate development at Dubai-based Al-Futtaim Group, which represents retail brands such as Ikea and Marks and Spencer and handles auto sales for Toyota, Honda and Chrysler Jeep.

Mr Shehadeh said the race was on for global brands to secure distribution rights and partners in Iran, where consumers have been starved of easy access to world-class names. He said Al-Futtaim was finding ways to get its brands into emerging retail spaces in Iran.

Many in the region remain cautious, aware that hardliners in Tehran and Washington could still derail a deal. Tensions in Yemen, where the US has backed Saudi Arabia in a bombing campaign against Iran-allied rebels, could threaten the nascent rapprochement.

Despite the uncertainty, flights between Dubai and Tehran are packed as businessmen try to rekindle links or seek new contacts in oil services, industry, manufacturing and real estate. "The space of permissible activities with Iran will gradually and noticeably increase over time but this will occur in phases and will not signify the end of all sanctions," said Farhad Alavi of Washington DC-based Akrivis Law Group. "That said, Iran is a large enough economy that any suspension or repeal [of sanctions] can have a tremendous impact."

Dubai grew as an entrepôt in the early 20th century by acting as a tax-free hub for Persian trade and has been disproportionately hit by financial sanctions imposed by Washington. Trade with Iran fell from a peak of $10bn in 2009 to $6.8bn in 2012. By 2013, the latest year for which figures are available, it had recovered slightly to $7bn.

Hossein Haghighi of the Dubai-based Iranian Business Council said trade had remained constrained since then and there was growing optimism that flows could bounce back if there was clarity on an end to financial sanctions as part of any permanent deal.

As technical details of a final agreement are prepared before a June 30 deadline, Iranian businessmen are calling for the negotiators to outline clear mechanisms for financing lines to be reopened. They said without explicit assurances, banks will be wary of reprisals if the political landscape changes in Tehran or Washington.

"The fear of reprisals is as strong as sanctions and those can only be allayed if there is some sort of certification process that provides corresponding banking permissions or trade facilitation," said Amir Ali Amiri of ACL, an Iran-focused investment firm.

But some local lenders, including Dubai Islamic Bank, have been tentatively contacting former clients to prepare for the ending of sanctions, according to businessmen in the emirate.

Dubai-based conglomerates are pushing ahead into Iran. Majid al-Futtaim, Al-Futtaim's mall-operating family competitor, owns the franchise for Carrefour in the region. In the early 2000s the company split its Iranian operations from the main business and now runs successful supermarkets in the Islamic republic.

"There is huge potential for more supermarkets, the company could easily double size in five years," an insider said.

77m
Population of Iran

'Iran is on our doorstep – we have to be there, it could be a great game changer'

$7bn
Value of Dubai's trade with Iran in 2013

'Iran is a large enough economy that any suspension or repeal [of sanctions] can have a tremendous impact'

$10bn
Value of Dubai's trade with Iran in 2009, its peak

Shoppers at the old bazaar in Tehran. Iran remains an untapped market for US businesses Atta Kenare/AFP

New direction
US 'tour group' feted

They came as American "tourists" and were startled to receive hugs and even free gifts by people on the streets and in the bazaars of Iran.

But unlike most tour groups, this one comprised entrepreneurs, consultants and investors from the US who had travelled to explore the business opportunities available in Iran if international sanctions over the nuclear programme are lifted.

On Thursday, the group gathered at Privé, a French restaurant in Tehran, to hear western-educated Iranian entrepreneurs give slick presentations about how a new, investor-friendly Iran was emerging. It was the first time since the 1979 Islamic Revolution that American business people had held a public meeting in the country.

Investors have been quietly beating a path to Iran to develop business contacts in anticipation of the removal of sanctions in the event of a nuclear deal at the end of June. But Iranians are particularly excited at the prospect of access to US companies and products.

Senior US business delegations — from aviation companies to oil firms and food conglomerates — are rumoured to have been discreetly travelling to Iran or holding meetings with Iranian businessmen in regional or European countries over the past year in preparation for the day that business with one of the world's most untapped markets is authorised.

But the 22 entrepreneurs, investors and consultants at Thursday's meeting were the first to travel openly to Iran.

"I'm an entrepreneur in the New York Stock Exchange . . . but not planning to do business in Iran," said Linda Mason, who chairs Bright Horizons, a leading provider of worksite child care in 45 US states and Europe. "It's more to be a communicator, as American business people are always looking for new markets and are open for risks."

'American business people are always looking for new markets and are open for risks'

Western visitors meet Iranian schoolgirls — Mehrdad Emrani

At Thursday's event, Iranian guest speakers gave presentations on the opportunities available, while a deputy from the ministry of information and technology described the potential of Iran's rising telecoms sector.

But despite the optimism, the pitfalls for Americans doing business in Iran were never far away. The "tourists" were forced to meet at a restaurant to avoid the security checks needed for an official business conference that could have been scuppered by hardliners, particularly as the group were nationals of a country Iran has long dubbed its arch-enemy.

Even the soundtrack in the restaurant had reminders of the polarisation in the country. One of the songs was *Happy* by Pharrell Williams, which gained notoriety when a video of Iranian teenagers dancing to it prompted a conservative crackdown where men and women were arrested for dancing together.

Still, Iranian enthusiasm for doing business with Americans was infectious. "We are going to speak about what we saw to help [Barack] Obama [strike a nuclear deal]," said Ned Lamont, a 2006 Democratic candidate for the Senate representing Lamont Digital Systems.

Najmeh Bozorgmehr

Economic stimulus

China slashes cash reserve ratio as slowdown deepens

LUCY HORNBY — BEIJING

China has acted to stimulate its slowing economy, cutting sharply the level of cash commercial banks must park with the central bank in a strong signal of intent to boost flagging growth.

The People's Bank of China moved to free up cash to lend to business by cutting its so-called reserve requirement ratio 1 percentage point yesterday just days after data revealed the country's economy expanded at its slowest pace for six years in the first quarter.

The PBoC has only once before reduced the reserve requirement ratio by as much and that was during the depths of the financial crisis in November 2008.

"This clearly signals that China has entered into an aggressive monetary easing cycle, to counter the economic slowdown and the rising deflation risk," said economists at bank ANZ.

The required reserve ratio, known as the RRR, specifies the portion of a commercial bank's deposits that must be held on reserve at China's central bank, where it is unavailable for loans and other investments.

China has cut benchmark interest rates twice and lowered the RRR once since November. The latest cut in the RRR to 18.5 per cent followed data that showed first-quarter growth slipped to 7 per cent, held back by a slowdown in construction and manufacturing.

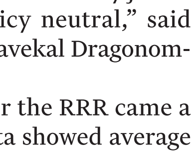
That was the weakest quarterly expansion since early 2009. The Chinese government had previously announced a growth target of "around 7 per cent" for 2015.

China's strong growth in recent years forced the PBoC to keep bank reserves high to help manage capital inflows. But now slower growth has reduced the amount of foreign money flowing in, while Chinese banks' net foreign exchange purchases recorded their largest-ever fall in December and January.

"With the fall-off in capital inflows, the central bank needs to cut reserve requirements fairly substantially just to keep monetary policy neutral," said Andrew Batson of Gavekal Dragonomics.

The move to lower the RRR came a day after official data showed average new home prices fell year-on-year for a seventh consecutive month in March. But the drop narrowed from February after a number of cities introduced measures to encourage purchases. In Shanghai, home prices were flat, while prices in Beijing and Shenzhen rose.

The PBoC's cut in the reserve requirement ratio was the biggest since the financial crisis in 2008



The slower pace of decline in property prices suggests loosening measures adopted over the past year are starting to feed through. New home prices fell in 49 of the 70 cities tracked by the statistics bureau, compared with 66 cities last month. Average prices fell 6.1 per cent in March compared with a year ago, according to a Financial Times analysis of official figures, but only by 0.2 per cent compared with a month earlier.

Industry call

Republicans warned against shutting Export-Import Bank

SHAWN DONNAN — WASHINGTON DC

The US risks compounding the mistake it made by not joining a new China-backed Asian infrastructure bank if Republicans in Congress go through with a threat to shut down the country's export credit agency, GE's top international executive has warned.

John Rice, who oversees GE's international operations as the industrial group's vice-chairman, told the Financial Times in an interview he believed Washington's decision not to join the Asian Infrastructure Investment Bank as a founding member alongside China had been a mistake.

But he said he was also concerned about the push by Republicans not to renew funding for the US Export-Import Bank, led by president Fred Hochberg, which is due to run out of money in June.

GE, alongside Boeing, is one of the main beneficiaries of Ex-Im financing.

"To opt out of AIIB and not reauthorise [the Ex-Im Bank] would send a strong signal to the rest of the world that we are not going to participate entirely," Mr Rice said. "We would be the only major economy without an export credit agency."

The Republican push to close the bank comes even as most in the party express strong support for the administration's efforts to finalise a significant trade deal with Japan and 10 other Pacific Rim economies. Republican leaders in Congress have vowed to work to quickly pass a bipartisan bill introduced last week that would give President Barack Obama the "fast-track" authority he needs from Congress to close the Trans-Pacific Partnership. But that advance has been accompanied by the re-emergence in recent weeks of a debate over Ex-Im Bank's place in US trade policy that has split Republicans.

While many centrists in the party support the agency's reauthorisation, conservative critics argue that it provides unneeded subsidies to big companies such as GE, which can easily obtain the export financing they need from private sources.

The Obama administration narrowly avoided the shutting down of the Ex-Im Bank late last year. But a temporary extension to its funding negotiated then is due to run out in June and prominent Republicans such as Paul Ryan, the former vice-presidential candidate who now chairs the powerful House Ways and Means Committee, have vowed to close the bank.

Mr Rice said the issue was crucial for GE and that if the Ex-Im Bank were to be shut down the company was likely to have to shift production of gas turbines and jet engines overseas where it could take advantage of other countries' export credit agencies.

"Some of those jobs will go away if we elect to build stuff that could have been built in the United States in other countries," he said.

Hundreds of small and medium-sized enterprises in the US supply GE and their survival in many cases depended on the Ex-Im Bank helping to arrange export financing and guarantees, Mr Rice said.

"The idea that Ex-Im is a fat cat support mechanism just is not true."

INTERNATIONAL

Interview. Laurent Fabius

French foreign minister hits at Putin for arming Tehran

Laurent Fabius, centre left, seen with the Indian premier Narendra Modi in Paris this month, warned that Russia's decision 'creates an unfavourable environment' — Ian Langsdon/EPA

Criticism of Russian president reflects France's tough line and distinct voice in atomic talks

ANNE-SYLVAINE CHASSANY AND ALEX BARKER — PARIS

France's foreign minister has warned that Russia's decision to supply air defence weapons to Iran will strengthen opposition to a nuclear deal with Tehran and fan tensions in the region.

Laurent Fabius said lifting the ban on the delivery of the S-300 system sent the wrong signal as the west seeks to finalise an agreement outlined in Lausanne to limit Iran's atomic ambitions.

"An accord with Iran is designed to prevent nuclear proliferation in the region but also, more broadly, to appease tensions," Mr Fabius told the Financial Times in an interview. "We should avoid giving the impression that the period we are in will lead to rearmament; it creates an unfavourable environment and emboldens those who oppose an agreement."

The direct criticism of Russian president Vladimir Putin, who said last week he had revived the contract to reward Tehran on its "flexibility" in Lausanne, reflects France's tough line and distinct voice in the atomic talks.

Throughout years of nuclear discussions, Paris has earned a reputation as one of the west's most demanding negotiators. Its assessment has taken on even greater weight among some in the region, including Israel and Saudi Arabia, who believe US president Barack Obama is overly keen to reach a deal.

Paris wants sanctions eased after Iran scales back its nuclear programme, and a "snapback" mechanism that could restore them "immediately if there is a breach" of terms. By contrast, Iran wants them lifted as soon as the deal is signed. Regular verification of nuclear sites, which Iranians are resisting, is another sticking point.

"Be very careful about this: those points were discussed but have not yet been agreed. And these points are important," he warned. "France's position is that we want an agreement but [it] needs to be robust and verifiable."

This is no empty threat. The 68-year-old diplomat, whose political career spans nearly four decades since he became France's youngest prime minister under François Mitterrand, has earned a hawkish reputation ever since he blocked a deal in previous rounds of nuclear talks two years ago.

"We were presented with a draft that did not seem satisfying to me," he recalled. Bending over to reach his glass on the coffee table of his 19th-century office at the Quai d'Orsay, he said: "This is orange juice. If someone tells me it's water, I'd say, no, [it's] orange juice."

France's dynamic diplomacy and military strategy in the Middle East and Africa has contrasted with the country's economic woes since François Hollande came to power in 2012. Struggling to revive the economy at home, the Socialist president has placed the country at the forefront of the fight against the Islamist threat abroad. He has sent troops to northern Mali to oust groups linked to al-Qaeda, and Rafale jets to destroy targets of the Islamic State of Iraq and the Levant, or Isis, in Iraq. Paris also took action in the Central African Republic to help prevent a civil war.

Mr Hollande has been more dovish when dealing with the Ukrainian crisis, pushing back on Washington's idea to arm Ukrainian soldiers. While it has signed up to the concept of extending Russian sanctions to fit the year-end implementation deadline for the Minsk ceasefire deal, Paris is open to a potential rollback as soon as June, diverging from European partners such as Lithuania, Poland and the UK.

"If the Russians respect the Minsk commitments there could be an easing of the sanctions," Mr Fabius said. "If there [are] violations, then sanctions must be rolled over or even amplified." An attack on the Azov sea port of Mariupol would be such a trigger, he said.

In the past decade, Washington and London have suffered from the fallout of the war in Iraq. They have lost goodwill in the Middle East and public opinion is wary. This is providing France with an opportunity to get closer to Arab powers, according to Dominique Moïsi, founder of the French Institute for International Relations.

Libya's civil war, and the country's emergence as a hotbed of extremists, is another priority for Mr Fabius. Asked whether Paris would send troops to help stabilise the country if a peace deal could be brokered, he said France's activism had its limits and urged other powers to step up if needed. "France does not have the vocation, nor the means, to be Africa's policeman," he said.

Mr Fabius is also keen to revive peace talks between Israel and the Palestinians. France's initiative is likely to take the form of a new UN resolution based on a two-state solution, according to people with knowledge of the matter.

"What will be the international framework?" he asked. "Some say a UN resolution. Yes. And a conference. Why not. We need to agree on timing with [US secretary of state] John Kerry. There are other issues to deal with. One negotiation should not hurt another, but there's always a lot going on, so the risk is we never find the time."

Asked if such a process could start after an Iranian nuclear deal with Tehran, he said with a smile: "We'll see. Those are the subtleties of diplomacy."

On Iran
'France's position is that we want an agreement but agreement needs to be robust and verifiable'

On Ukraine
'If the Russians respect the Minsk commitments there could be an easing of the sanctions'

On Africa
'We can't be present everywhere. France does not have the vocation, nor the means, to be Africa's policeman'

CV

Long career at the top of Socialist party

1946 Laurent Fabius is born in Paris into a family of antique dealers. Educated at some of France's best schools: École normale supérieure, Sciences Po and École nationale d'administration.

1984 Aged 37, he is appointed prime minister by François Mitterrand, the Socialist president and his mentor.

1986 Forced to step down as premier after the Socialists lose the election. He is succeeded by Jacques Chirac.

2000 Becomes economy and finance minister under Prime Minister Lionel Jospin, a position he holds until 2002.

2004 Campaigns against the party line for the Socialists to support a No vote in the European constitution referendum. His campaign fails.

2007 Comes third behind Ségolène Royal and Dominique Strauss-Kahn in primaries aimed at choosing the Socialist presidential candidate.

2012 Appointed foreign minister following François Hollande's election as president. *Anne-Sylvaine Chassany*

GLOBAL INSIGHT
EUROZONE

Chris Giles

How to deal with a problem child like Greece

Never in the history of the eurozone has the eurogroup been so united. Never have the institutions formerly known as the troika — the European Commission, the International Monetary Fund and the European Central Bank — had such a common purpose. Whether by design or by accident, the Syriza government led by Alexis Tsipras has achieved more European harmony than a collection of continental choirs singing "Ode to Joy". Everyone is deeply frustrated by the antics of Greece.

The issue dominated the spring meetings of the IMF and World Bank in Washington. European officials spoke of their incomprehension that Yanis Varoufakis, Greece's finance minister, has not engaged with technical talks to change the terms of the country's lending conditions.

Success would unlock €7.2bn of additional finance necessary to keep Greece from running out of money. The IMF and European officials issued a common message that the detailed talks must speed up or the chances of a default were high. Without agreement, the loans would remain under lock and key.

No one understands Greece's behaviour in shunning the talks since an outline deal was agreed in February. They call it childish. Many say privately that the Greek authorities are behaving like a toddler having a tantrum. It's unacceptable, they say. But just as parents often differ on the best way to quieten their screaming offspring, European harmony does not extend to agreement on the best strategy for dealing with the Greek government.

Then there is a "treat them like grown ups" camp. Greece might be behaving like a child, but you need adults in the room to demonstrate the right way to behave. No shouting back and a belief in the power of example dominate their thinking. They find it difficult to imagine the family broken up and want to give Greece every chance to modify its behaviour.

Many say that the Greek authorities are behaving like a toddler having a tantrum

That is far too lenient, say the disciplinarians. There is a certain relish evident when they discuss the potential punishments the child must face if it defaults on its debts, either to the IMF in May or June or to the ECB if it manages to survive until the summer. Cutting the Greeks loose from the ECB — and imposing capital controls — would end any delusions in Athens and bring the government to its senses, they believe. That way, after a messy period, Greece would be able to stay in the euro.

Then there are the sticklers for the rules. Their approach is more incremental, wanting to remind the misbehaving offspring of their duties and the consequences of continuing to ignore proper process. They are willing to follow through with punishments, but with a heavy heart.

Finally there are the reluctant parents, who did not want Greece in the first place. These officials are beginning a campaign to kick the country out. They have given up and want to put the naughty child up for adoption. The family would be stronger without this bastard child, they say.

Looking on are the indulgent grandparents in the US and UK who think the parents are doing a terrible job and will ruin things for the rest of the extended family. Unhelpfully, they shout this message from afar while absolutely refusing to get involved, wanting the parents simply to pay up for Greece to take the problem away.

In Washington, the signs were that the sticklers for the rules had the upper hand. Greece has been told to negotiate speedily. There will be no deals in smoke-filled rooms, no acceptance of delayed payments to the IMF, and the money will not be released if progress has not been made. They worry as much about political contagion if they were to give in to tantrums as economic contagion from letting Greece go. But they also hold out the carrot of flexibility if Greece calms down and engages with the proper process.

The most remarkable aspect about the mood is that no one is convinced Athens will end its tantrum.

chris.giles@ft.com

Mediterranean crossings

Europe urged to act as death toll from migrant boats mounts

JAMES POLITI — TURIN

EU countries were under mounting pressure to take further steps to prevent the loss of life of migrants in the Mediterranean Sea after as many as 700 refugees were feared dead in the latest accident off the Libyan coast.

In what would mark the worst maritime disaster of its kind in the Mediterranean, an overcrowded boat tipped over after the refugees caught sight of a Portuguese merchant ship coming to rescue them and all shifted to one side, according to accounts by just 28 survivors.

As a massive search and rescue operation was under way at the site of the accident, the European Commission released a statement calling for "bold" and "immediate" actions to be taken to stem the crisis. Pope Francis called on Europe to act "swiftly and decisively" to address the emergency.

Calmer spring weather between Libya and Sicily has led to more than 11,000 migrants making the crossing in the past 10 days, straining the resources of Italian authorities, who are struggling to rescue and care for them once on land.

The 11-month civil war between rival Libyan authorities has also halted long-standing efforts at cracking down on smuggling networks trafficking migrants from sub-Saharan Africa to the Mediterranean shore, as well as the monitoring of sea traffic along the oil-rich country's 1,770km coastline.

Although the weather is roughly similar to last year, the death toll is dramatically higher and could exceed 1,600 if the details are confirmed.

Matteo Renzi, Italian prime minister, called an emergency meeting of Italy's foreign, defence and infrastructure ministers last night to discuss the migration crisis.

The latest deaths are also likely to further intensify criticism of the decision last year taken by the Italian government, under pressure from other EU partners, to shut down a wide-ranging patrol of the Mediterranean known as Mare Nostrum.

The EU in November launched its own border control mission known as Triton but it is much more limited.

The Italian government has persistently asked the EU to increase the funding for Triton from its current level of €3m per month, but there is no consensus to do so with many European governments feeling pressure from anti-immigrant groups.

Save the Children is urging EU leaders to convene crisis talks in the next 48 hours to restart the search and rescue operations that ended late last year.

Justin Forsyth, the charity's chief executive, said: "The scale of what is happening in the Mediterranean isn't an accident, it's a direct result of our policy. How many more innocent children and their families must die before our leaders act? It is time to put humanity before politics and immediately restart the rescue.

"EU leaders must hold an emergency meeting in person or by phone within 48 hours to expedite this process and agree an immediate plan to stop these drownings. Europe cannot look the other way while thousands die off our shores."

Pope Francis called on Europe to act 'swiftly and decisively'

The Libyan civil war has turned the country into the main hub for human traffickers seeking to take advantage of refugees searching for a better life in Europe from across the Middle East and Africa. In many cases migrants are subjected to abuse even as they pay hefty fees to the smugglers, which often allegedly go to finance the feuding militias.

The Islamist-leaning authority in Tripoli, which calls itself the National Salvation Government, this month hired Raymond Associates, a New York-based consultancy, to advise it on border security and immigration policy along with other issues.

Additional reporting by Borzou Daragahi

IMF negotiations

Greece urged to bring reforms to 'fruition'

Lagarde warns Syriza to set aside politics and deliver agreed measures

SHAWN DONNAN AND SAM FLEMING — WASHINGTON

Greece's populist government must set aside politics and bring promised reforms to "fruition" to save its economy and avoid default, the head of the International Monetary Fund has warned ahead of a crucial few weeks of negotiations.

In an interview with the Financial Times, Christine Lagarde said she told Yanis Varoufakis, the Greek finance minister, during a meeting of the IMF/World Bank spring meetings in Washington last week that he needed to accelerate reforms. She warned that patience was running out with the new Syriza government in Athens and that any honeymoon it may have had with its creditors was rapidly coming to a close.

"There has been a huge commitment by the international community, the European partners but also the IMF and the European Central Bank to actually support the Greek economy," she said.

"What needs to happen now is that the political views actually deliver the measures, the tools, the reforms that could actually reach the objectives that have been set between the international community and Greece: restore stability, improve the economy [and] make sure that one of these days Greece re-accesses the financial markets on its own and without support."

Technical negotiations in Athens between the Greek government and staff from the IMF and European institutions were "gradually picking up", she said. "We hope that is going to continue to fruition so that we can move on."

The intervention from the IMF head came as Mario Draghi, the ECB president, said the eurozone was better equipped than in the past to deal with a new Greek crisis but warned of "uncharted waters" if the situation deteriorated.

Asked during a press conference in Washington on Saturday about the risks of contagion from a new flare-up in Greece, he said: "We have enough instruments at this point in time . . . which although they have been designed for other purposes would certainly be used at a crisis time if needed."

The two tools he referred to were the ECB's so-called outright monetary transactions, which have never been used, and quantitative easing, which the ECB launched in January.

However, Mr Draghi added: "We are certainly entering into uncharted waters if the crisis were to precipitate, and it is very premature to make any speculation about it."

Renewed fears about the risk of a Greek debt default and possible exit from the euro overshadowed last week's IMF meetings in Washington.

Jack Lew, the US Treasury secretary, warned that a full-blown crisis in Greece would cast a new shadow of uncertainty over the European and global economies, as he put pressure on Athens to come forward urgently with detailed reforms to its economy.

There is mounting frustration among Greece's partners over faltering attempts to sort out its financial woes. Pierre Moscovici, the European commissioner for economic and financial affairs, has set a mid-May meeting of eurozone finance ministers as the decisive moment for Greece to agree a new set of economic reforms or face possible default.

Greece is being urged to speed up technical discussions on a list of reforms it has submitted that, if agreed, would unlock €7.2bn in loans from Greece's eurozone partners. Without this funding Greece is likely to run out of money and default on payments due to either the IMF in May or June, or to the ECB later in the summer when large numbers of bonds held by the bank mature.

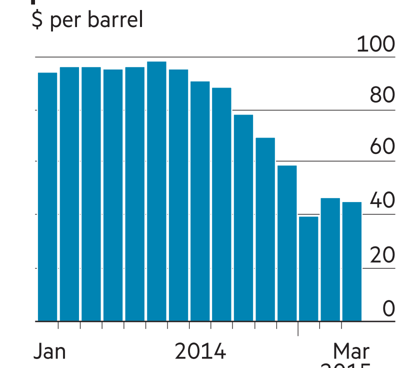
Wolfgang Münchau page 11

Venezuela. Oil price collapse

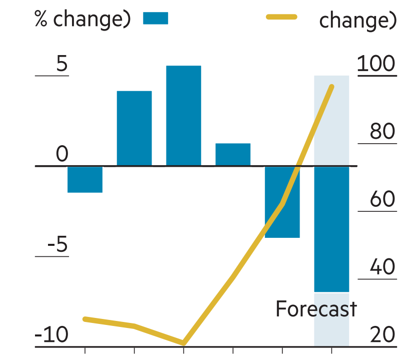
Maduro turns up rhetoric as economy slides

Scarce supplies: people queue at a Caracas supermarket. Many are likely to resell goods on the black market — Jorge Silva/Reuters

Venezuelan crude oil basket price
$ per barrel



Growth and inflation
Real GDP (annual % change) CPI (annual % change)



Sources: IMF; Venezuelan Ministry of Oil and Mining; Dolar Today; Central Bank of Venezuela

President rails against US as critics allege his country's woes are due to corrupt inner circle

JOHN PAUL RATHBONE AND ANDRES SCHIPANI — CARACAS

Flanked by puffy-faced generals, Nicolás Maduro unveiled a 1.2km long flag this week, swore to crack down on businesses and railed against the imperial US — even as Cuba, the Venezuelan president's closest ally, pursued detente with Washington.

"We are going to radicalise the revolution," Mr Maduro roared at the military rally in Caracas on Monday. "Enough with the smirks of the bourgeoisie," he thundered from the stage.

The contrast between Mr Maduro's fiery rhetoric and Havana's softly-softly approach to Washington is stark. On Tuesday, the US removed Cuba from its list of state sponsors of terror — making it possible for Havana to obtain multilateral funding and easing financing from third country commercial banks.

Mr Maduro's escalating nationalist agitprop — including the unveiling of Venezuela's longest flag — comes as he faces accusations of mishandling the economy. Two years since he took office, even former officials call the country "a laughing stock".

"It's as if we have the Midas touch in reverse," said former finance and planning minister Jorge Giordani earlier this year. The country, which sits on the largest oil reserves in the world, suffers from "fiscal nymphomania".

Venezuela's economy is forecast to shrink by 7 per cent this year. Inflation is expected to top 150 per cent, fuelled by printing money to fund a fiscal deficit estimated at 20 per cent of gross domestic product. Asdrúbal Oliveros, head economist at local consultancy Ecoanalítica, estimates the drop in government revenues caused by the collapse in oil prices squeezed imports by 22 per cent last year and will slice another 31 per cent off imports this year, crushing supplies of essential goods. "It is going to be a very tough year," said Mr Oliveros. "The crisis is hitting all social classes."

At a grocers in Petare, one of Latin America's biggest slums, the owner complained about scarce meat supplies while an argument erupted as a shopper grumbled about the price of cooking oil. "You can't charge me 1,800 bolívars," he argued. "I paid 270 last month."

A main reason behind the topsy-turvy economy is the system of parallel markets and multiple exchange rates.

The minimum wage, for example, is 5,620 bolívars a month — worth $892 at the main official exchange rate, or just $21 at black market rates. Government stores sell food at regulated prices, but shortages mean many consumers must turn to the black market.

Nicolás Maduro has been blamed for economic mismanagement

"Everyone is hustling," said Luis Vicente León of Datanálisis, a local pollster. "Some 70 per cent of people queueing at state stores simply resell their goods on the black market. There are arbitrages everywhere." But not everyone plays the game successfully. At one state-run supermarket, a queue snaked into the car park. One customer swore as he emerged empty-handed.

Analysts say Mr Maduro's inability to put in place more coherent economic policies is due to a corrupt inner circle dominated by the army, who assure the president social control in return for preferential access to goods and hard currency. Two years ago Mr Giordani, chief economic adviser to the late Hugo Chávez, estimated that insider access to subsidised hard currency had cost the country more than $25bn, equivalent to almost 15 per cent of GDP.

A contraband trade in subsidised gasoline costs more than $2bn a year, economists estimate. "This regime does not favour the needy, but rather the powerful and corrupt," another former minister said, likening it to a "mafia cartel". Military officials make up a quarter of the cabinet, including the finance, food and justice ministries.

However, midterm parliamentary elections this year may hold Mr Maduro's feet to the fire. Polls suggest the opposition will secure a majority, which could lead to a referendum and Mr Maduro's replacement.

"No system in the world, capitalist or socialist, could cope with such an oil price drop," said Nicmer Evans of Socialist Tide, a leftist group critical of the government. Mr Maduro's "biggest challenge is what happens if people come down from the slums".

In 1989, the *Caracazo* price riots — which followed a collapse in oil prices and a neoliberal economic adjustment programme recommended by the International Monetary Fund — were bloodily put down by the government of President Carlos Andrés Pérez.

"With oil revenues so low, the only thing left [for the government] to do is to repress," said Mr Oliveros.

On Monday, Mr Maduro warned that oil prices were unlikely to rise soon. Thumping his lectern, the 52-year-old swore the government would continue its vaunted social programmes and blamed speculators for "constant economic war". "Do you agree that I should radicalise?" the president roared. "We're going to take a firm hand."

Technology regulation

Brussels plans to shake up telecoms market

DANIEL THOMAS — LONDON
DUNCAN ROBINSON — BRUSSELS

Brussels will call for a "level playing field" between telecoms groups and online rivals such as WhatsApp and Skype next month, putting Europe's regulators on a collision course with US companies once again.

The European Commission is set to launch reforms of everything from telecoms to media to online shopping as part of plans for a "digital single market" within the EU on May 6.

Companies that provide over-the-top content — which lets people have free voice calls and messages over the internet — are "not subject to the same rules" as traditional telecoms company, argues the commission in a draft document seen by the Financial Times.

The move will be welcomed by large European telecoms groups which have long claimed these services benefit from less stringent regulation. But it will also add fuel to accusations that the EU favours European operators over their US peers.

Technology regulation in Brussels came under the spotlight last week after the commission launched an antitrust case against Google, following nearly five years of back-and-forth negotiations between the company, its rivals and the regulator. This year, Barack Obama accused European regulators of protectionism — charges that the commission denied.

Alongside "ambitious" telecoms reforms, the commission has also promised a "comprehensive investigation" into platforms such as Amazon and Google, to look at how they display search results and use customer data. In the document, the commission writes that the "growing market power of some online platforms" is "potentially raising concerns".

Other measures discussed include simplifying the removal of illegal content from the internet and wide-ranging copyright reforms.

Andrus Ansip, the commissioner overseeing the plan, last month outlined ways to eliminate tactics such as geoblocking, which stops customers in one country using websites or watching media or buying goods online in another.

The commission's plan to reform telecoms regulation comes as its long-running attempt to get rid of roaming charges and introduce some form of "net neutrality" — whereby all internet traffic must be treated equally — enters its final stages.

Labour costs

German pay rises buoy hopes for eurozone recovery

JEEVAN VASAGAR — WOLFENBÜTTEL
CLAIRE JONES — FRANKFURT

Andre Krowle is looking forward to indulging his passion for rare vinyl records and a longer-than-usual summer holiday. The foreman at a midsized manufacturer in Lower Saxony is one of 3.7m German metalworkers who will receive a 3.4 per cent pay rise from the end of this month.

After years of belt-tightening, in which Germany held increases in unit labour costs below the European average, the inflation-busting settlement struck by IG Metall, Germany's largest union, is being seen as a trendsetter for pay negotiations in other sectors.

That shift is being welcomed not only by workers such as Mr Krolow but also Germany's trading partners, who believe it could bolster the eurozone's economic recovery. They have long complained that years of wage restraint have fuelled Germany's large current account surplus, holding down demand for their products while allowing German exports to flourish.

At the same time, some fear rising wages could inhibit competitiveness.

"When things are going well, you have to give something back, but you have to be careful that you don't endanger the model of success," said Georg Weber, the managing director of Mr Krolow's employer, MKN, a maker of kitchen equipment for caterers. "We have to be careful that Germany doesn't lose its competitiveness."

Already other German employers have followed suit in raising pay. BAVC, Germany's chemical association, agreed

3.4% Inflation-busting pay rise agreed for 3.7m metalworkers

43m Post-reunification record high in employment by end of 2014

a 2.8 per cent pay rise with trade union IG BCE, even though the industry's output is forecast to contract by 0.5 per cent this year.

This, combined with a new €8.50-an-hour mandatory minimum wage and rules that make it easier to extend labour agreements to non-unionised workers, will contribute to a rise in German pay this year from 2.5 per cent to nearly 4 per cent this year, said Jörg Krämer, chief economist at Commerzbank.

There are signs that such rises are encouraging frugal German consumers to reach into their pockets. Consumer spending surged in the last quarter of 2014, according to the country's federal statistics office — outstripping even UK levels — as employment reached a record post-reunification high of 43m.

"This pattern is going to continue in 2015," said Andreas Rees, chief German economist at UniCredit Research. "It is not encoded in the DNA of Germans to save more money and spend less than people in other countries as many observers seemingly think."

Germany's comparatively modest wages have their origins in the aftermath of reunification, when high unemployment and business outsourcing reduced the bargaining power of German labour. In exchange for job guarantees unions were prepared to accept more restrained pay rounds. Between 2004 and 2010, the growth in German labour costs was below the EU average even as its economy grew strongly. But since then, the trend has reversed, according to Germany's federal statistical agency. In 2013, German manufacturing labour costs were the fifth highest in the EU, at an average of €36.20 an hour.

At MKN, the prospect of further pay increases is prompting concern among the management. Founded in 1946, MKN is a classic German Mittelstand business; a family-owned machine maker that derives 55 per cent of its €90m annual turnover from exports but manufactures entirely in Germany.

Over the past three years, there have been "relatively high" wage increases for German manufacturing, Mr Weber said. In response MKN plans to slow the pace of investment, halve the number of new hires this year and review product lines to see if any outmoded items needed to be dropped.

Mr Weber said the 3.4 per cent deal agreed with IG Metall represented a "high six-figure sum" for his business. He said: "I won't say it's an enormous problem, but it puts pressure on you to achieve growth, and you have to be very efficient."

Others are more sanguine. Mr Rees said that higher wages would have a "positive but moderate" impact on rebalancing between Germany and the eurozone.

Wage increases, he said, would be "beneficial but not a panacea".

THE BIG READ. VIETNAM

As the communist state prepares to commemorate the fall of Saigon 40 years ago, some of those displaced by the war are now being encouraged to play a prominent role in the emerging economy.

By Michael Peel

Profitable return

Now: Modern Ho Chi Minh City, formerly Saigon. Then: US soldiers help people flee the former South Vietnamese capital 40 years ago — Getty Images; Dirck Halstead / Liaison Agency

Nguyen Cao Ky Duyen is a star in Communist-ruled Vietnam, but she was once a refugee from it. The longtime co-host of *Paris By Night*, a variety show devised for homesick expatriate Vietnamese in France and the US but also popular inside the country, fled Saigon as a girl just before the city's fall almost 40 years ago. Her family was more politically vulnerable than most, as the North Vietnamese army prepared to topple the southern government and its US backers: her father, Nguyen Cao Ky, was a fighter pilot and former premier of South Vietnam who escaped by flying a helicopter to a US warship. It took him almost 30 years to get back — and longer still to persuade his daughter to join him.

"He said to me, 'you should come back to Vietnam. That's where the future is, because Vietnam is a growing country," recalls Ms Ky Duyen in an interview in a restaurant on a strip of glitzy developments by the Saigon river. "But I didn't know how to get started. I didn't have any friends. I didn't have anyone here."

As Vietnam prepares to mark the 40th anniversary of reunification on April 30 1975, Ms Ky Duyen counts herself among the "war baby" returnees whose stories hold a mirror to what has changed — and what has not — in the country. The returnees, and in some cases their sons and daughters, are having a roller-coaster ride in a frontier market of 90m people, more than 60 per cent of whom were born since the end of the war, whose Communist rulers are grappling to restore the excitement that once surrounded this emerging economy. Their stories show what can happen in an autocratic country when a diaspora once afraid of war, persecution and poverty feels the confidence to return with new ideas — and an appetite to make money.

"Before I came back I was told 'you will be prevented [from starting a business] by the government'," says Sieng Van Tran, a technology entrepreneur who lived in the UK for more than 30 years after escaping the Mekong Delta. "But the reality is that once the government knows you're here to do business, they leave you alone."

This month's commemorations will be a poignant reminder for many returnees of why their families left. The programme includes a ceremony on April 30 to mark the "liberation of Ho Chi Minh City", as Saigon was renamed in honour of the founder of Vietnam's Communist party and bête noire of Washington. But, in a nod to changed times, the role of the postwar diaspora, who have returned to the country because of "favourable policies", is being promoted.

Hundreds of thousands left Vietnam in the exodus at the end of the war and during the years of post-conflict reprisals. A well-connected few were flown out with US help, while thousands of unaccompanied children were evacuated in US planes in "Operation Babylift". Other refugees died at sea, part of a wave of "boat people" fleeing Vietnam and Cambodia's Khmer Rouge genocide, whose plight became a signature horror of the late 1970s. Those who survived resettled around the world, leaving the US alone with more than 1.5m residents of Vietnamese origin.

Role for the returnees

Reliable data for the numbers of overseas Vietnamese, who have returned home are hard to find. But many people inside and outside government say more are venturing back, as the estimated 4m-strong diaspora moves to a more prominent role than simply bolstering annual expatriate Vietnamese remittances, which official estimates put at $12bn. They have been tempted by a range of incentives over the past two years, from tax breaks on importing cars to a relaxation on nationality and property ownership rules. For a country seeking a return to strong growth, amid continued worries about the structural health of the economy, the *Viet kieu* are an important tool.

"They are a new potential investment source for Vietnam," says Dinh Tien Dung, finance minister. "And I believe they will come back more and more."

The wooing of the *Viet kieu* is part of a wider opening of the economy that began in the 1980s and accelerated when the US ended its trade embargo in 1994. That thaw turned Vietnam into a sought-after frontier market for investors and a crucial manufacturing link in global supply chains for the likes of Apple and Adidas. But a property bubble developed during the mid and late-2000s and the economy faltered after the global financial crisis, dragged down by bad debts and financial troubles at big state companies that accounted for 40 per cent of gross domestic product. Growth fell to its lowest levels in more than a decade, while in 2011 inflation soared to 18.7 per cent. Perhaps the greatest emblem of excess was the forced 2010 government bailout of Vietnam Shipbuilding Industry Group after it racked up debts of $4.5bn.

Nguyen Tan Dung, prime minister, admitted to "shortcomings in the government's management" and "economic structural weaknesses".

This means that the returnees have become an important element in kick-starting the second economic act in a country that was once growing at close to 10 per cent a year. Some officials talk cautiously about recovery now that GDP has risen more than 6 per cent for the past three quarters. Vietnam has also benefited from the relocation of factories by international companies looking for cheaper labour, as wage costs rise in China and regional rivals such as Thailand. Hanoi has invested heavily in financial incentives to attract big manufacturers such as Samsung, the Korean electronics company, and Intel, the US chipmaker.

Scepticism remains, however, about the touted Vietnam revival: bad debt problems remain and a flagship plan to privatise hundreds of state companies has all but stalled. Hanoi's efforts suffered another blow last May, when officially-approved protests against China over a maritime dispute descended into riots that ransacked hundreds of foreign-owned businesses. While the trigger was anti-China sentiment, some analysts also saw the mayhem as reflecting workers' frustrations with pay and conditions.

Push for prosperity

Yet, for all the wider doubts, the wealth on display in Ho Chi Minh City is testament to how members of the war babies generation are doing very well for themselves.

Tran Quoc Tuan, chief financial officer of Viet Uc Seafood, a food company with international ambitions, says he is more confident after a "really tough" couple of years when he first returned in 2009. He talks about how several of his friends who worked in Vietnam for investment funds left in 2012-13. But many of those who stayed tend to be launching start-ups, ranging from pharmacies to architectural design shops, or bringing big international brands to this large consumer market.

"The expats who came as professionals left. The ones who stayed are the entrepreneurs," he says. "Now, the economy is picking up and the expats are coming back."

Returnee Henry Nguyen, the son of an official in the South Vietnamese government, was not even two when he left Saigon with his family for an all-American childhood in Virginia. Mr Nguyen now runs IDG Ventures Vietnam, a technology-focused venture capital business, and won the franchise to open the country's first McDonald's last year. He is also married to Nguyen Thanh Phuong, a financier who is the daughter of the country's prime minister.

He says he was regarded "more with curiosity" than suspicion when he first returned in 2001, surviving a rocky start to become one of the country's highest-profile business people. "I grew up speaking very little Vietnamese," says Mr Nguyen, a Harvard graduate who was part of a consortium that last year announced it would set up a new Major League Soccer team in Los Angeles. "Much to my regret, and even shame, when I first got back to Vietnam it made it very difficult, because my language skills were almost non-existent."

His story shows how the return of the *Viet kieu* is a tale of culture and politics as well as profits. Communist rule in Vietnam still faces no significant open challenge: the government jails dissenters and the party is the only one standing in elections. There are disagreements within the party, not least over whether to tilt more towards China or the west. But the most significant changes will happen at next year's five-yearly party congress, not through the ballot box.

One returnee from Europe is gleeful about the business opportunities — "you can do anything in Vietnam" — but also worried about the perceived arbitrariness of the state. Graft is still a significant problem in a country that ranked 119 out of 175 countries in Transparency International's perceptions of corruption index last year. "That's the thing that worries me, they have got a file on everyone," he says. No matter how clean you are, if they want you out — you're out."

Lingering tension

A second political barrier for some *Viet kieu* is lingering war-era animus. The north-south divide, with its sense of victor and vanquished, no longer exists officially but more than one person notes how business people from Hanoi, the former capital of North Vietnam, often succeed in Ho Chi Minh City, but rarely the other way round. A returnee from the US now working in finance observes how many prominent positions in big private Vietnamese companies are held by relatives and friends of government officials.

"I wouldn't say they don't have the skills to be successful," he says. "But obviously the connection helps."

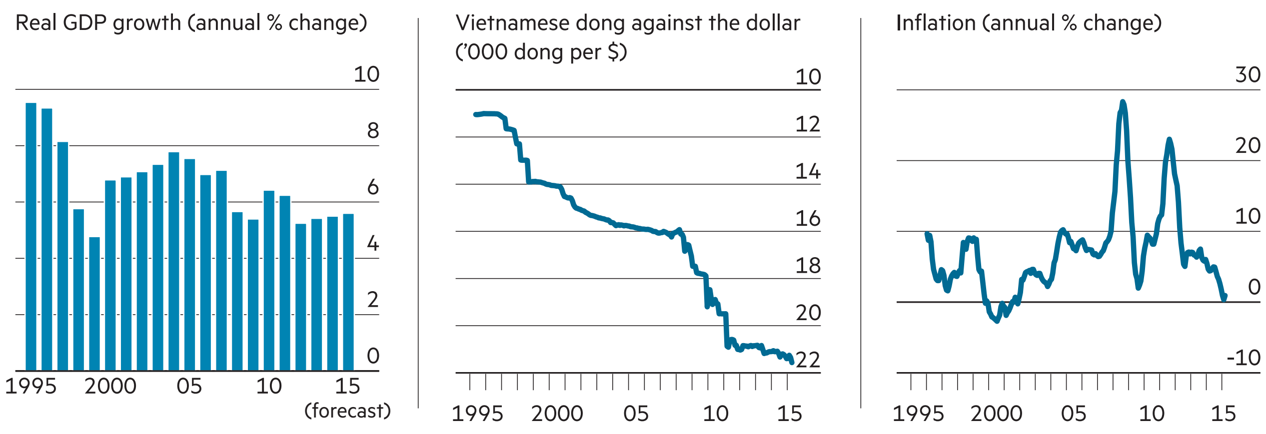
Viet Tan, a political group whose main leaders are based outside Vietnam, campaigns vocally against the government in Hanoi. It says the country "has the potential of becoming an economic tiger", but the Vietnamese people "find themselves restrained by a backward dictatorship".

Pham Binh Minh, Vietnam's deputy prime minister and foreign minister, insists that "there's no prejudice against those who left". The government is trying to encourage even more *Viet kieu* to come back, through programmes including summer camps for children of the diaspora. Asked what the authorities will do about those whom he says still "retain the hatred" for the Communist party, he says: "It's our policy to welcome them back home."

Paris by Night's Ms Ky Duyen acknowledges that her celebrity status has helped ease her re-entry. She is also returning only gradually, still spending big chunks of time in the US. And she has first-hand reminders of tensions that remain: her show has irritated Hanoi in the past and is circulated in Vietnam mainly via bootlegged DVDs.

But, 40 years after those chaotic last days in Saigon, a sense of a big chance for those fortunate enough to be able to take it is drawing Ms Ky Duyen's centre of gravity back towards her former home. While the US is already "set and settled", Vietnam is "hungry for everything", she says. "I started coming back more and more often. I look around at the market here, the growth, and I think, wow, there is a lot of potential."

Growth slowdown weighs on Vietnam



Sources: IMF; Thomson Reuters Datastream

FT

Video
Opportunities grow for exiles who want to return. Michael Peel reports
ft.com/back-to-vietnam

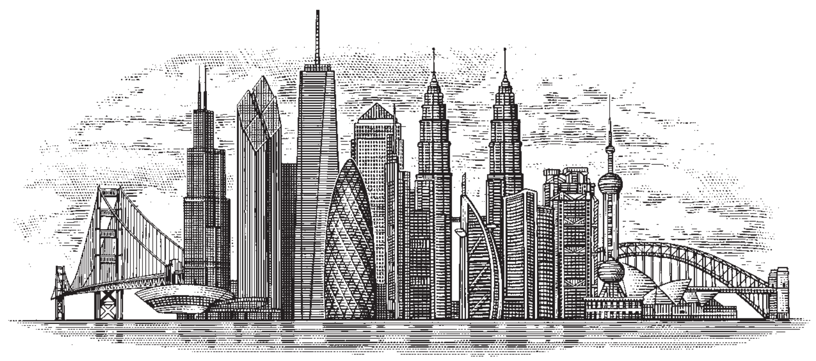
Regional challenges
Hanoi takes ambivalent stance on China and US

Hanoi's triumph over Washington is one of the climactic 1970s events that looms largest in the western consciousness. But the newly unified Vietnam's short 1979 border war with China is perhaps as important to understanding the geopolitical position of the southeast Asian country today.

Vietnam sits in a tough neighbourhood, managing tricky relationships with the superpowers of east and west as they tussle with each other for maritime security supremacy in the South and East China seas. If Hanoi's territorial battles with Beijing seem to have brought it closer to Washington, then that is more by default. While some Mekong region states, such as Cambodia, enjoy both a close relationship with Beijing and patronage from it, Vietnam's position is much more ambivalent. Cultural and political affinities between the two Communist-ruled states — and Hanoi's trade dependence on Beijing — are offset by a resentment in Vietnam over its neighbour's perceived aggression.

Those tensions boiled over last year, after China moved an oil rig into waters off the disputed Paracel Islands in the South China Sea. Hanoi despatched a flotilla of vessels that clashed with their Chinese counterparts, while people took to the streets in both Hanoi and Ho Chi Minh City in officially-sanctioned protests against Beijing's actions. The demonstrations ran out of control, as mobs attacked hundreds of foreign-owned businesses — many of them from other countries, principally Taiwan.

While the dispute died down when China removed the rig in July, it threatens to flare again over Beijing's policy of building up reefs in disputed seas into permanent islands. Vietnam has called on world powers to add to criticism of the strategy already voiced by the US, among others. But Hanoi has also been at pains not to appear as if it is cosying up to the US — and the continued balancing act between Washington and Beijing is likely to be a big underlying theme of the Vietnam Communist party's five-yearly selection of its top leaders next year.



FINANCIAL TIMES

'Without fear and without favour'

MONDAY 20 APRIL 2015

Minority at Westminster not ideal but workable

Political uncertainty is troubling but it need not spell chaos

Britain's reputation for political stability might not survive the year. Of all the likely outcomes of the general election next month, none seems to add up to a robust government. Neither the Conservatives nor the Labour party can govern alone, at least judging by the polls. And the third force in parliament will probably be a party opposed to the existence of the UK as we know it.

The Scottish Nationalists might behave provocatively, tugging a weak Labour government to the left and exasperating English taxpayers. That way lies disarray and, in time, another referendum on Scottish independence. The uncertainty is troubling for business, and one reason why the pound has fallen against the dollar of late.

There is cause for concern, but not panic. Britain has not suddenly lost its ancestral gift for improvisation. It has a way of finding a path through political and constitutional problems. An indecisive result at the last election in 2010 threw up an improbable coalition that lasted five years, and another in May could yet produce something workable. It should not be assumed that minority government would be nasty, brutish and short. It has worked in Canada and Scandinavia. Britain experienced it in the 1970s and, briefly, in the 1990s too. The system depends on opposition parties resisting the temptation to bring down the government.

Look closely and they have an incentive to show such forbearance. If the SNP win virtually every seat in Scotland, as polls suggest, they can only stand to lose if there is another election soon after. They will not want to take risks before the Scottish elections in 2016. Money matters, too. Labour and the Liberal Democrats would struggle to raise funds to fight a second election.

The haggling culture of coalition would still exist in a minority government, but it would move from Whitehall to parliament itself. Ministers would craft legislation in consultation with opposition politicians to be confident of their support. The prime minister of the day might proceed on a bill-by-bill basis or seek a "confidence and supply" agreement, in which a decisive number of opposition MPs support the government in confidence motions and finance legislation. The latter would bring some measure of predictability. It would also cut down on non-essential legislation. Britain is not a country crying out for new laws. Its central priorities are to improve productivity and cut the budget deficit.

A minority government would be bound by the Fixed Term Parliaments Act. This law prevents an election for five years unless a supermajority in the House of Commons votes for one, or the government loses a confidence motion and no other administration is formed within 14 days. This provides some insurance against the uncertainty of another election, though it also raises the prospect of governments taking it in turns to form and fall in the Italian style.

If there is another election, that need not spell chaos. It is likely that at least one of the two main parties will have a new leader by then. We can only hope that it is someone more able to win a majority than David Cameron, the Tory prime minister, or Labour's Ed Miliband. Predictions are in vogue of indecisive elections as far as the eye can see, with no leader ever again emulating Tony Blair, Margaret Thatcher and John Major in securing 40 per cent of the popular vote. This is premature.

Minority government is not ideal. It might bring the chaos that is predicted by commentators, and feared by the markets. But many feared the same of coalition in 2010. Do not underestimate the British knack for muddling through.

Misbehaving banks must have their day in court

Elizabeth Warren is right to call out deferred prosecution agreements

Almost seven years since the financial crisis crashed over the global economy, many of its repercussions are still being felt. Among them is the public's opinion of finance, which remains low despite repeated attempts by the industry's leaders to turn the page on its role in the crisis.

A fundamental reason is the almost total absence — with the exception of some small countries such as Iceland — of a thorough public reckoning with the financial industry's ethical problems. No sooner has the public digested the shock from one revelation of rampant misbehaviour than another scandal erupts, be it rigging global price benchmarks, fraudulently selling rotten products to retail customers, or helping tax evaders and sanctions busters.

In the US, the most blatant expression of the failure to rein in the financial industry is the use of deferred prosecution agreements. These are deals which, despite sufficient evidence for criminal prosecutions, allow wrongdoers to pay fines and make commitments to improved conduct in return for avoiding the admission of criminal guilt.

In an important speech last Wednesday, US Senator Elizabeth Warren condemned the widespread use of DPAs against financial industry lawbreakers. Her main argument is that DPAs' main punitive tool — fines — have far too little deterrent effect. A fine paid by a corporation is essentially a raid on its shareholders' funds. What is more, the lag from the commission of a financial crime to the implementation of a DPA is long. Both mean that even huge fines (some have been in the billions) are highly unlikely to make much difference to the economic prospects of the responsible individuals when they decide whether or not to break the law.

To put it simply, too many get away with cheating. Criminal prosecutions would stand a better chance of holding culpable individuals to account — and therefore to discourage wrongdoing in the first place. Deterrence aside, there is also an important democratic value in lawbreakers being publicly branded as such.

So Ms Warren is right. DPAs, originally intended to deal with low-stake crimes with little chance of repetition, have become a blight on a financial sector that has proved capable of crimes that are neither low-stake nor one-off.

The senator proposes, as a minimum, that no new DPA should be offered to a bank that is already in one. It is hard to disagree with this idea, which has quickly been dubbed "two strikes and you're out". If anything, it seems too weak. Given the flaws of DPAs, why allow even one strike?

A pragmatic reply is that DPAs are so rife most big banks already have one. A deeper one goes to why DPAs are so popular with prosecutors to begin with. The reason is a belief that has governed US policy throughout the crisis: that the failure of any big financial institution would cause an economic calamity, the avoidance of which takes priority over anything else.

Since a criminal conviction could quickly put a financial company out of business altogether, too big to fail entails too big to jail. The analogy is often drawn with Arthur Andersen, the accountancy firm that was brought down by its association with Enron.

Ms Warren disputes this view. She may well be right that big banks are more jailable than the administration thinks. But as long as it does, banks will be given as many strikes as they like.

Ending too big too fail is therefore the overarching goal — one that Ms Warren shares with this newspaper and many others. That it would help end the use of DPAs is one more reason to complete this long-overdue task.

Letters

Email: letters.editor@ft.com or
Fax: +44 (0) 20 7873 5938
Include daytime telephone number and full address
Corrections: corrections@ft.com

Ethical principles must be scrupulously applied

Sir, John Gapper's article "Fossil fuel campaigners play charades" (April 16) should emphasise another aspect of the issue.

In the debate on whether universities should have investments in fossil fuels, an important principle, symmetry or consistency, seems to have been ignored. If a corporation's shares are deemed tainted and therefore unworthy of being held in an endowment, then logically a university must eschew all dealings with the company.

No donations, including matching gifts, could be retained; no recruiting on campus would be allowed; no faculty member could accept a consulting assignment or research grant. Failure to apply an ethical principle consistently is the height of hypocrisy and indeed is morally reprehensible.

If a university decides its endowment should not own shares of a company, it must ensure every link is severed and accept all the consequences. Principles, if they are to have any validity and value, must be observed scrupulously, even if doing so involves sacrifices. Many individuals and institutions may be allowed "a little hypocrisy". I do not believe universities are entitled to relief.

Richard Karl Goeltz
New York, NY, US

Politicians can now look big oil in the eye and not blink first

Sir, John Gapper's damning article on divestment, "Fossil fuel campaigners play charades" (April 16), misses the point. The financial impact of such campaigns may be "a drop in the bucket", but the aim is not to bankrupt big oil tomorrow. Commodity markets are a confidence trick. Just a wobble set in motion by a small but growing number of campaigners has got us questioning the very future of fossil fuels — even within these pink pages.

Much more than a "symbolic" gesture, divestment has created a space in the conversation to challenge the fossil fuel industry. The wind has been knocked from the sails of its well-funded lobby; just as the hacking scandal did to Rupert Murdoch, politicians can now look big oil in the eye and not blink first.

But let's not forget that governments own more oil, gas and coal assets than the private sector and continue to prop up the industry through billions in fossil fuel subsidies each year. The divestment movement, ordinary people voting with their wallets as they switch pensions or bank accounts, reminds governments that they cannot continue to inflate the carbon bubble.

Someday, soon, it will burst. If the world sticks by its commitment to 2C of global warming, then there is no long-term future for fossil fuels. In the context of the tumbling cost of renewables, leaps in efficiency and the development of electric vehicles, divestment from fossil fuels will soon be the only sensible option.

Shelagh Whitley
Research Fellow,
Overseas Development Institute,
London SE1, UK

Heterodox views need a separate hearing

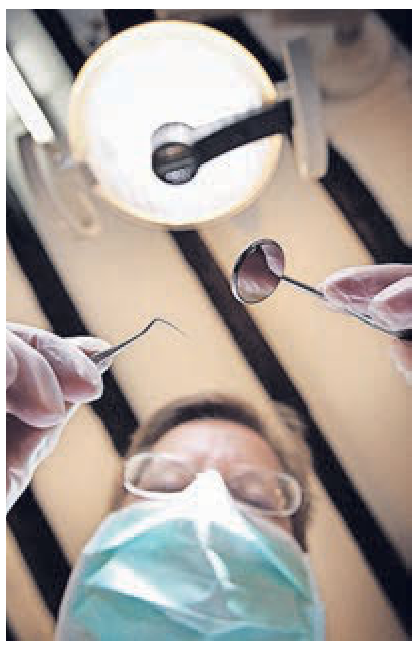
Sir, While I commend John Kay's openness of mind and willingness to see that our understanding of economics is still very much under development ("There is one right answer economists do not yet know", Comment, April 15), he seems to be making the age-old mistake of assuming economics to be a hard science.

In science and engineering it is possible to test and prove something at little if any risk. You can build as many unconventional (or heterodox) bridges as you like in controlled environments to test if they work. Nobody builds a new design of bridge and then tests it by sending thousands of people across it, possibly to their death. Scientific research can influence, and change, the orthodox view with new information.

You cannot do this in macroeconomics. All you can do is build a model to test your hypothesis while hoping your model is a decent representation of the world. There is no safe way to "live" test it. To see whether a theory works one simply has to try it to know for sure, with terrible implications if the results are not as you expected. To test it is to do it. Those that defend the orthodoxy have the response that to try anything else is too risky, and so the efficacy of new theory is never known. It takes a crisis to persuade people to try something new, and even then it is not certain to change the orthodoxy — even when the orthodoxy has been shown to be wrong!

Given that testing is impossible, it takes a brave policy maker, not a brave economist, to try new economic theory. Policy makers need separate access to heterodox views. Defunct economists will retain their influence without this.

Rod Price
Worcester Park, Surrey, UK



Economics as a discipline is very far from dentistry

Sir, Unfortunately for John Kay's argument ("There is one right answer economists do not yet know", April 15), economics as a discipline is very far from having reached the settled status of dentistry or civil engineering. Our confidence in these sciences is founded on their obvious success in ministering to our wellbeing in many different ways — what comparable successes can economics point to?

Given that its pretensions to be a science on a par with these theoretically robust and amply empirically confirmed sciences is so threadbare, the idea that different approaches should be tried in economics is far from heterodox "relativism" but the plainest common sense.

Paul Amodia
London SE24, UK

The old parts of speech we learnt at school were never fit for purpose

Sir, John Joisce (Letters, April 16), makes a bid for the grammatical high ground by pronouncing that "than" and "as" in the context discussed are neither adverbs nor prepositions but conjunctions. In doing so, he unwittingly demonstrates Stephen Pinker's argument in his excellent recent book *The Sense of Style*: namely that the old parts of speech categories that some of us learnt at school are not — and never were — fit for purpose. Applied to English, their definitions are not mutually exclusive and almost all prepositions or conjunctions can be shown to behave adverbially at times, or prepositions to behave like conjunctions and so on. Pinker explains how linguists have proposed new ways of categorising parts of speech that have a much sounder empirical basis than those originally conceived for Latin grammar, to which Mr Joisce accords such authority.

Stephen Barber
London W2, UK

Public sector pensions will be a top priority

Sir, The incoming government cannot just ignore the deficit for public sector pensions but it will have to face up quickly to the impact tackling it will have on the UK economy and indeed on taxpayers (Lombard, April 14).

In ICAEW's contribution to the IFS Green Budget 2015, we highlighted the pension entitlements of current and former public sector employees in the whole of government accounts. Most recently, these stood at £1,302bn — more than 40 per cent of the total liabilities as at March 31 2014. These obligations are not reflected within the public sector net debt figures reported in the Office for National Statistics' national accounts as central government currently has a policy of not setting aside investments for its future pension obligations and instead chooses to pay pensions out of current revenues.

The private sector has for many years been taking proactive action, not just to reduce pension deficits but to protect future generations from having to pick up the bill. Such measures have included raising the pension age and moving from defined benefit to defined contribution schemes. Whoever takes power on May 8 will need to bite the bullet in introducing drastic reforms to public sector pensions. However unpopular these may be, not doing so will leave future generations with an even more unmanageable legacy.

Michael Izza
Chief Executive, ICAEW

A nation strapped for cash needs to move away from 'bigger is better'

Sir, At last someone is speaking sense about Trident replacement. Gideon Rachman ("Buying Trident would weaken British defence", April 14) correctly spells out why the aim of nuclear deterrence could be achieved by nuclear-tipped cruise missiles. He suggests that these could be fired from conventional submarines at a fraction of the cost of a Trident submarine and missile replacement programme.

Tim Hare (Letters, April 15) responds that the US Navy has made cruise missile delivery obsolete, implying that they were not effective. Not so — or is the RN operating obsolete Tomahawk missiles! — the USN just decided that it could afford Trident and it needed no back-up. The UK does not have a US-size budget and so has to make a decision based on affordability. Do we really need such big bangs as the enormous reach and destructive power of Trident missiles? I would say not and, in the process of trying to afford them, we are seriously reducing the size of our navy.

It is a fact that modern conventional submarines are stealthier than their nuclear powered big brothers and, with modern battery and recharging technology, they have significantly improved the length of a totally covert patrol. More important, they are a fraction of the cost of a nuclear hull. So the number of submarines at sea could be increased, and perhaps we could also add a few more desperately needed frigates to protect our two giant aircraft carriers — viewed as excellent targets by all submariners including conventionally powered ones! The thinking of politicians and Senior Service officers needs to move away from "bigger is better" towards "numbers count".

If some form of nuclear deterrent is considered necessary, then nuclear-tipped cruise missiles fired from a submarine — whether conventional or nuclear — offer a far lower cost and pragmatic solution for a nation strapped for cash.

Robert Forsyth
Deddington, Oxon, UK
Commander RN (Retd)

The CEO's letter grows ever more complex

Sir, Jamie Dimon has been at pains to show that JPMorgan is not too complex to manage ("Jamie Dimon warns next crisis could see 'more volatile' markets", FT.com, April 8). It is therefore unfortunate that the bank's own rather hefty 320-page annual report includes gems such as this:

"The question for society is: Are we, in total, better off or worse off because of some of the great products and services that come with complexity? The answer in our opinion is a resounding yes, though you should always strive to minimise the risks."

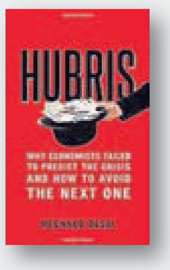
Could the CEO's letter to shareholders have become too long to write?

Miguel Neto
Geneva, Switzerland

COMMENT ON FT.COM
Nick Butler
The US approach to Venezuela has reinforced the crumbling authority of the government
blogs.ft.com/nick-butler

An austere critic of a mistaken science

Book review
by Ferdinando Giugliano



Hubris: Why Economists Failed to Predict the Crisis and How to Avoid the Next One
By Meghnad Desai
Yale (£18.99/$28)

Economists have not had an easy time explaining why they failed to predict the financial crisis. When Queen Elizabeth II asked a group of scholars "Why did nobody notice it?" during a visit to the London School of Economics and Political Science in 2008, Her Majesty was voicing a widespread concern.

Academics have since faced revolts within their own departments, with students demanding — and in some cases obtaining — fresh curriculums, lighter on mathematical abstractions and more rooted in real-world events.

Lord Desai, an emeritus professor at the LSE, shares these criticisms. In *Hubris*, the Labour politician explains how in his 50 years as an economist he has "witnessed the change in the culture of academic economics. It abandoned empirical habits of studying the economic reality and became wedded to aprioristic reasoning".

Desai's pamphlet is an impassioned plea for economists to look beyond the so-called "neoclassical paradigm" — the body of theory, rooted in the assumption that people make rational decisions and interact in smoothly functioning markets, which has dominated the profession since the second world war. He wants his colleagues to look for insights in other schools of thought including Marxism, and Friedrich Hayek's Austrian school.

The book is a useful primer for those interested in learning more about how the economics profession has developed. It correctly blames the failure to foresee the crisis on unrealistic macroeconomic models, which aim to simulate the behaviour of an economy as a whole. Like ancient doctors, who tried to explain the causes of diseases while knowing nothing about germs or bacteria, academics sought to describe the functioning of developed economies while ignoring the financial sector and the risks it contained.

Desai's own explanation of the great recession is a complex blend of unorthodox economic doctrines. He resurrects the early 20th-century theory of long economic cycles from Russian economist Nikolai Kondratiev, saying that underlying demographic and technological forces meant the global economy was bound to peak around 2007. To this he adds a dash of Marx and Hayek, as well as Thomas Piketty, whose blockbuster study *Capital in the 21st Century* argued that inequality has shot up in the past four decades.

Yet this explanation is too ad hoc to be of much use to anyone who wants to predict the future. As the author admits: "It would be a challenge to build a formal econometric model which can encompass these elements."

The book's proposal on how to respond to the crisis is also unconvincing. Together with other economists, including Kenneth Rogoff of Harvard University, Desai signed a letter in 2010 pressing Britain's politicians to embark on a programme of stringent austerity.

In *Hubris*, he sticks to his guns. The crisis, he insists, was the result of excessive borrowing by families and businesses. Cutting taxes or increasing government spending (as some economists suggest) would solve nothing, merely adding to the pile of debt. Desai also thinks the economic data for now appears to have vindicated his view: the growth spurt in the UK in the past two years proves its chancellor, George Osborne, was right to press ahead with a programme of budget consolidation.

However, Desai is wrong to argue there is no room for fiscal expansion during a so-called balance sheet recession. In fact, there is a strong case for governments to step in to support growth when families and corporations are busy paying back their debts. Nor is it possible to state with certainty that the government's austerity plan led the UK to recover: indeed, it is equally plausible that growth would have been faster had the coalition opted for a less abrupt programme of fiscal consolidation.

Economic systems are too complex for academics and forecasters to predict precisely what will happen. Hence, Desai is right to advocate more humility for his profession.

But for this very reason, *Hubris* cannot show us how to avoid the next crisis. It merely provides an opinion — an engaging but not an entirely convincing one.

The writer is the FT's economics correspondent

Comment

A Greek default is necessary but Grexit is not

EUROPE
Wolfgang Münchau

Until last week, discussions with Greece did not go well. That changed when the circus of international financial diplomacy moved to Washington for the spring meetings of the International Monetary Fund and the World Bank. Then it became worse.

My hunch is that this show will go on for quite a while. The Greeks want to merge the talks on the extension of the current, second, loan programme with the talks on the new third one. For that to work they will require temporary bridging finance to get through the summer. This sounds like somebody has a plan. But this is not my impression. I have never seen European finance officials so much at a loss.

The big question — whether Greece will leave the eurozone or not — remains unanswerable. But I am now fairly certain it will default.

My understanding is that some eurozone officials are at least contemplating the possibility of a Greek default but without Grexit. The complexity is severe, and they may not have had the time to work it out. But it may be the only way to avert utter disaster.

On whom could, or should, Greece default? It could default on its citizens by not paying public-sector wages or pensions. That would be morally repugnant and politically suicidal for the Syriza-led government. In theory, it could default on the two loans it received from its EU partners, though it is not due to start repaying the first of those until 2020, and the second in 2023. It could also default on the remaining private-sector bondholders but that would not be a good idea. Greece might need private sector investors later.

It could also default on the IMF and the European Central Bank. The IMF is expecting a series of repayments. The ECB wants its money back in the next few months on debt it holds on its books. Defaulting on the IMF and ECB is the only option that would bring genuine financial relief in the short term. Nobody has ever done that. It might trigger Grexit.

Then again, it might not. Default is not synonymous with exit. There is no EU ruling that says you have to leave the eurozone when you default on your debt. The link between default and exit is indirect; if a country defaults, its defaulting securities are no longer eligible as IOUs for the country's banks to tender at ECB money auctions. The same applies to any other debt guaranteed by Athens. The Greek banks hold quite a bit of the latter category, and might find it hard to obtain liquidity if their government falters.

> Defaulting on the IMF and ECB is the only route to short-term financial relief. Nobody has ever done this

So to default "inside the eurozone" one only needs to devise another way to keep the banking system afloat. If someone could concoct a brilliant answer, there would be no need for Grexit.

The economic case for a debt default is overwhelming. It is hard to see how Greece can ever service its debts as agreed. Even in the creditor countries few people are under illusions about Athens' long-term debt-servicing capacity. Full servicing would require huge primary surpluses — that is, surpluses before payment of interest on debt. It would leave Greece trapped in a debt depression for a long time. The scheduled primary surplus for 2016 is 4.5 per cent, which is bordering on the insane. Athens absolutely needs to default.

At the same time, there is a strong case for remaining in the eurozone. Grexit would bring incalculable economic risk to the country itself, and would harm the EU's geopolitical ambitions and its global reputation.

What is worrying is that the talks are not going anywhere. This is why speculation about an agreement in the summer or the autumn is ultimately not reassuring. Particularly puzzling is the Greek negotiating strategy. On the substance, I tend to agree with finance minister Yanis Varoufakis: the eurozone's economic crisis management has been catastrophic. Under present parameters, it is fundamentally unsustainable. But I do not understand why he spends so much time preaching to those who tend to agree with him at prestigious conferences in pleasant surroundings. Should he not be working on the hard negotiations with his European creditors, and on the two plan B scenarios?

Both Grexit and the option of a default inside the eurozone would stretch the resources of even the most organised government. It would require military-style preparation: exchange controls, temporary closure of land borders and airports, overnight bank recapitalisation, and logistical planning to convey money from A to B on D-Day. Is the Greek government really so smart it can just wait until the fateful moment arrives, and then manage this whole process in real time with no script?

I think I know the answer to that, and wonder whether one or more people on both sides of these discussions may simply be miscalculating. We may be on the verge of one of those sleepwalking moments in European history.

munchau@eurointelligence.com

Obama's welcome Kissinger realism

AMERICA
Edward Luce

The biggest rap against Barack Obama's foreign policy is that he is naive. Yet, as his presidency matures, Mr Obama is showing qualities one would normally associate with Henry Kissinger — the arch-realist of US diplomacy. Neoconservatives and liberals alike care about the internal character of regimes with which the US does business. Mr Kissinger stands apart from that tradition. The less Mr Obama preaches morality to foreigners, the more he distances himself from the exceptionalists — the more opportunities he creates. It is a welcome sign of a president with a learning curve.

The chief example is Mr Obama's evolution on the Middle East. In 2009, he went to Cairo to offer a new chapter in relations between the west and the Muslim world. His felicitous words went down well in the region but were quickly forgotten. Today Mr Obama gives fewer speeches but has a bigger appetite for deeds. The best measure is his recent framework nuclear deal with Iran. Much to the chagrin of his critics, the agreement is silent on Iran's sponsorship of terrorism abroad and repression at home. Its focus is on curtailing Iran's nuclear ambitions.

There is no mention of Iran cutting off its support for the Houthi rebels in Yemen, or recognising Israel's right to exist. That is just as well. Had Mr Obama insisted on either, there would have been no deal (there is still a way to go before reaching a final agreement). In pushing ahead anyway, Mr Obama is grasping the essence of diplomacy — when adversaries come to terms, neither achieves everything they want. Much the same would apply to Mr Obama's recent deal with Cuba's dictatorship. Although Mr Kissinger has criticised Mr Obama's Iran deal as too weak, it is very much in line with his school of diplomacy. The perfect should not be the enemy of the good.

But it goes heavily against the grain of the debate in Washington. In 1972, Mr Kissinger shocked the world — and the "red scare" hawks back home — by pulling off a rapprochement with Mao Zedong's China. The Shanghai Communiqué was scandalously amoral. It made no mention of Chairman Mao's gulags. Nor did it call for China to end its third-world adventurism. But by splitting Beijing from the Soviet orbit, it dramatically served US interests and laid the foundations for the west's victory in the cold war. Had Richard Nixon — Mr Kissinger's boss — been hamstrung by ethical concerns, it would never have happened.

> The essence of diplomacy: when adversaries come to terms, neither achieves everything they want

Without acknowledging it, Mr Obama is taking a leaf from Mr Kissinger's book in the Middle East. At the same time as pursuing a deal with Iran's unsavoury regime, Mr Obama is stepping up support for its equally dubious counterparts in the Sunni world. In the same week Mr Obama's Iran deal was signed, he restored $1.3bn in annual military aid to Egypt's army, increased US support for Saudi Arabia's strikes on Yemen's Houthi rebels and gave his backing to the creation of an Arab (read Sunni) force. Next month he will host Arab leaders at his presidential retreat in Camp David.

It is a classic balance-of-power approach to the Middle East. Mr Obama is simultaneously giving succour to both sides of the region's gaping Sunni-Shia divide. Rather than trying to convert the Middle East to our values, it seeks to limit the region's ability to export its pathologies. In 2008, Mr Obama campaigned to restore the US's moral authority in the world. Yet George W Bush's blunders in the Middle East were driven by moral zeal. Many of Mr Bush's advisers believed they could implant Jeffersonian democracy on the banks of the Tigris and Euphrates. Should Mr Obama develop his deftness of touch, he could stake a claim to restoring America's intellectual authority in the world.

It is an approach that will ultimately be tested in the battle with the Islamic State of Iraq and the Levant. In Mr Obama's first year in office, there were 1,600 terrorist attacks in the Middle East and north Africa, according to the US state department. That had almost tripled to nearly 4,650 by 2013. Far from cutting off al-Qaeda's head with the death of Osama bin Laden, the Salafist threat has grown a hundred new ones — and poses a far more complex challenge. Sending troops to fight Isis would be to risk another quagmire. Yet betting on the competency of US-trained Iraqi army units and moderate Syrian rebels would be a triumph of hope over experience. As has been said when US-trained Afghan forces are defeated: "Who trained the Taliban?" The answer is no one. No one trained Isis, either.

If Mr Obama wants to defeat Isis without allowing the US army to be sucked into another destructive war, local strongmen must do the job for him. In some places, such as Iraq, that means relying on Iran-sponsored local Shia militias, and the Kurdish peshmerga. In others, such as Syria, it means Bashar al-Assad. Such an approach will attract a great deal of opprobrium. Mr Kissinger received a lot of that — sometimes deservedly (there was no possible justification for the US carpet bombing of Cambodia). But what matters in the negotiating chamber is the end result. US values are both admirable and universally desirable. Sometimes the best way of realising them in practice is to put them on the backburner.

edward.luce@ft.com

Matt Kenyon

A cautionary tale of power, votes and second-class shares

OPINION
Christopher Rossbach

Four years into the downturn that followed the dotcom boom, two computer scientists greeted Wall Street with a brazen offer that was to make them and their investors rich: a stake in a company that would be beyond ordinary shareholders's influence, perhaps for as long as its founders lived.

The company, Google, was one of the first in Silicon Valley to issue second-class shares that give outside investors no say. Its success is one reason why such "dual-class" structures — once synonymous with the clubby boardrooms and chancy capital markets of the continental Europe of lore — have won wide if sometimes grudging acceptance from investors. We are shareholders ourselves. Yet unseemly events unfolding at a much older Swiss company, in which we also own shares, offer a lesson to investors about the importance of having a vote and knowing their rights.

Sika began in 1910 when Kaspar Winkler also developed a new technology: a compound that let him waterproof the damp tunnels beneath the Alps so electric trains could pass through them. The particular skill of Winkler and his successors was to find sons-in-law who could carry on the business. They did so twice: in 1921 when Friedrich Schenker joined after marrying Winkler's daughter; and in 1953 when Romuald Burkard entered after marrying Schenker's daughter Franziska.

The family owns only 16 per cent of Sika; in an ordinary public company its scions would long ago have been removed by investors, probably to the company's detriment. Shareholders' impatience for a quick jump in the share price is one reason why many boards take on too much debt, make expensive acquisitions or sap long-term value by chasing short-term profits.

But Sika was no ordinary company. Despite their fairly small economic interest the Winklers (and later the Schenkers and Burkards) had 52 per cent of the votes. That is because they own a special class of shares which, like those held by Google's founders, do not trade on the stock exchange.

> While control may be in the hands of a few, the value of the company must be shared with all

Unchecked power poses risks, as we knew when we became shareholders in 2004. But we believed the Burkards when they said they would treat shareholders fairly, as they had for generations. We also did our work to understand the rights of minority shareholders, who between them have a majority of the shares but not of the votes. Since then Sika's earnings have quadrupled and its share price has risen sixfold. Such successes explain why founder-controlled companies are among Europe's best-performing stocks.

But when Franziska Burkard-Schenker died in 2013, 10 years or so after her husband, something changed. Within a year their heirs decided to sell; Saint Gobain, a French maker of construction materials, agreed to pay an 80 per cent premium to buy the family's controlling stake. Other shareholders did not even get an offer. Our shares lost close to one-fifth of their value that day.

To us, this violates an elementary principle of fairness that was a critical consideration for our investment in Sika: that, while control may be concentrated in the hands of a few shareholders, the value of the company must be shared with all. The dual-class structures used in Silicon Valley improve on the European model in a way that clearly respects this rule. Google's super-shares possess special powers only in the hands of the founders; once passed on, they carry the same weight as ordinary shares. Facebook's do, too.

Sika shareholders do not enjoy the same protection, but we know our rights, and — led by Bill Gates, another long-term shareholder — we are standing up for them. The Swiss establishment is rallying behind the company's chairman and a majority of its directors, who are trying to block the family's sale.

Even if their principled stand ultimately succeeds, as I believe it will, this ugly episode provides a cautionary tale about the risks of super-voting shares. Yet investors should also be discriminating. Insisting that all shareholders have an equal vote may prevent the abuse of power, but it can stymie those talented and patient entrepreneurs who are intent on repaying investors' trust.

The writer is managing partner at J Stern & Co, a private investment firm

Our collective innumeracy adds up to a big problem

OPINION
Anjana Ahuja

For a huckster in possession of a 2p piece, there is merriment and money to be made in the corridors of Westminster. Fewer than half of British MPs can correctly calculate the probability of two heads being tossed in a row. Our lucky chancer could profit not only from betting on flipped outcomes, but also by extorting hush money from politicians embarrassed to have fluffed a basic maths question.

To encourage the 2015 intake to do better, Britain's Royal Statistical Society has launched the #ParliamentCounts campaign, offering all MPs a free training course on statistics. So far, 145 candidates have pledged to attend if elected in May. The society would like such training to be routine for MPs and senior civil servants. As Hetan Shah, its executive director, points out: "When it comes to the women and men elected to run the country, who make decisions on billion pound budgets and hold government to account, it is surely reasonable to expect they have a basic grasp of the numbers." If politicians cannot compute the chances of flipping two heads, then we must wonder at their ability to regulate the artful number-crunching that goes in on the City of London.

To be fair, the dismal counting skills exhibited by sitting MPs, uncovered in an Ipsos Mori poll of 97 members, may well be shared by the electorate. (The answer to the coin-flipping question is 25 per cent — 40 per cent of MPs called it correctly.) The UK comes 26th in the OECD's most recent numeracy rankings of 65 economies. That is comparable to France but predictably behind table-topper Singapore. Lee Hsien Loong, the city-state's prime minister, holds a first-class maths degree from Cambridge university; he succeeded Goh Chok Tong, an economist. In contrast, the UK political premiership has been mostly occupied by those educated in the arts and humanities. Margaret Thatcher, a chemist, is a notable exception. David Cameron, a philosophy, politics and economics graduate, has cited as his preferred successors a historian (George Osborne), a geographer (Theresa May) and a classicist (Boris Johnson).

> In the UK election, the battles over the NHS, the economy and welfare are fought largely in numbers

Numeracy has come to the fore with this election as traditional ideological battles over the National Health Service, the economy and welfare are being fought largely in numbers, with unprecedented scrutiny of how tax and spending commitments add up. An impressive group of blogs and organisations such as the crowdfunded Full Fact, stand ready to take scalpels to the claims.

Numeracy — and its close cousin, rigorous scientific thinking — is cropping up in the international political conversation, too. Hillary Clinton launched her 2016 US presidential campaign with climate change as a central issue. This is momentous: climate change has long been pigeonholed as an ideological question, when it has really been a matter of understanding the (admittedly difficult) numbers. In India, Narendra Modi has created a ministry dedicated to alternative health, including ayurveda and homeopathy. Alarmed doctors complain that ayurvedic practitioners will not submit to randomised controlled trials to measure efficacy — and that the prime minister's move is really a vanity project to stoke nationalist pride. Everywhere, numbers are becoming a political battleground.

There is no shame in struggling with maths. I especially applaud those who attempted to work out the date of Cheryl's birthday in a problem that went viral last week — and went on to contemplate the oddly uncommunicative companionship that binds Cheryl and her new friends, Albert and Bernard.

There is, however, scandal in allowing innumeracy and sloppy thinking to flourish unchecked. Parliament risks becoming a destination for articulate, power-hungry people who cannot add up. We already have one MP, David Tredinnick, who believes in the healing power of astrology and advocates its use in healthcare. We must do more than simply look to the heavens in despair.

The writer is a science commentator

BUSINESS EDUCATION

Kuala Lumpur school is new twist in monetary policy

The Central Bank of Malaysia and MIT Sloan have struck a deal to set up an MBA programme, reports Rebecca Knight

MIT Sloan School of Management knows a thing or two about start-ups. The US school's entrepreneurship faculty is among its most distinguished and over the past 10 years, Sloanies — the internal word for graduates of the school — have started nearly 250 businesses. Now, though, it is embarking on an altogether different enterprise: a new business school in Kuala Lumpur.

This month, MIT Sloan announced a collaboration with Bank Negara Malaysia (BNM), the nation's central bank, to establish the Asia School of Business (ASB). The school, which will run a traditional two-year MBA programme, is slated to open in September 2016 with an inaugural class of about 35 students.

BNM Governor Zeti Akhtar Aziz is a driving force behind the alliance. "[Our goal] is to start a business school that produces the kind of talent that will go out and be part of the advancement of the emerging world," she says.

Both parties have experience in this arena. BNM has made several large investments in education over the past 10 years, starting a school for Islamic finance, for instance. And for the past two decades, MIT Sloan has partnered universities around the globe to help less-known business schools expand curricula, implement programmes, and develop their academic base and research profile.

Creating a business school from scratch, however, is a far more ambitious — and daunting — task. According to David Schmittlein, who has been dean of MIT Sloan for eight years, it takes money, institutional will and engagement from the wider region.

"It also takes having the right people and having it be the right time for the region — it's a tall order," he says.

Dr Zeti admits the central bank is an "unusual partner" for MIT Sloan, but says the educational process of MIT, especially its emphasis on action learning, "is very much what we aspire to for our school". She herself is a product of US business education: she earned a doctorate in economics from the University of Pennsylvania and took courses at Wharton. "[Business school] taught me the theoretical foundations of how the system works," she says.

At a time of rapid economic growth in the Association of Southeast Asian Nations (Asean), professional management skills are badly needed, she says. Asean, which is comprised of 10 countries with a combined gross domestic product of $2.4bn, has an increasing number of global companies but the vast majority are small or medium-sized family-owned businesses.

The region also has few top-notch universities compared with other parts of the world. For ASB, this could be a competitive advantage. But it also presents a challenge: recruiting academics.

> 'The region has few top-notch universities compared with other parts of the world'

"High-quality faculty is a scarce resource," says Charles Fine, a professor at MIT Sloan who is the founding dean of the new school. In the short term, MIT Sloan professors will teach at ASB but over time the school will recruit and develop its own faculty.

While global affiliations like this one are today a common feature of management education, MIT Sloan is considered a pioneer in staking out relationships with schools in emerging countries. Nearly 20 years ago, MIT Sloan launched a partnership with Tsinghua University in Beijing and Fudan University in Shanghai.

Since then, the school has partnered schools in India, Turkey, Portugal and Brazil among others. The Sloan school was also a significant player in the "Cambridge-MIT Institute", set up between the University of Cambridge and MIT in 1999.

The collaboration with China came at a propitious time. According to Xiongwen Lu, dean of the School of Management at Fudan University, it was the beginning of China's economic boom. "Management education in China had just taken off and there was an urgent need for introducing advanced theory and methodology from western countries," he says.

These relationships last three to five years, at which point both schools evaluate whether the affiliation will continue. While most relationships endure, others have quietly ended. The school's partnership with Sungkyunkwan University in Seoul, Korea, lasted eight years, and that with the Skolkovo MBA programme in Russia ran for three.

For the partner school the advantages of an alliance are clear cut: joining forces with MIT Sloan, a top brand in business education, delivers an automatic boost to its reputation.

"We believe that the best way to learn is to learn from the best," says Yingyi Qian, dean of the School of Economics and Management at Tsinghua. "MIT Sloan is among the best in the world."

Other partner schools say they measure the relationship's success by the calibre of students and faculty they attract, where students find jobs after graduation, the impact of the research produced and through school rankings.

Francisco Veloso, dean of Católica-Lisbon School of Business and Economics, which together with the Nova School of Business and Economics runs the one-year Lisbon MBA with MIT Sloan, says his programme's marked improvement in rankings, even in spite of market difficulties, offers a "visible and clear measure" of its success.

For MIT Sloan, the benefits of partnering another school are more nuanced. David Capodilupo, the executive director of the office of international programmes, says the alliances boost its alumni relationships by providing local opportunities for far-flung graduates to reconnect with the school.

There is also a financial component, whereby the partner school typically makes a gift to MIT Sloan. But perhaps the most tangible benefit to MIT Sloan boils down to its ability to extend its influence and reach.

Establishing a presence in different parts of the world helps the school to cultivate business relationships and creates potential for new strands of academic research. Because the school does not seek out these relationships, says Mr Capodilupo, there must be "significant interest from faculty" to do research on a particular place.

The alliances also provide inroads for the school's international "action labs" — experiential courses that involve students working on a project for an organisation. "We get exposure to companies in parts of the world that we may not have ordinarily had access to," says Mr Capodilupo.

MIT Sloan also has the opportunity to shape the future of business education in emerging economies, according to Prof Schmittlein.

"I am being serious and not cynical in the least when I say that our purpose is to help improve management education in the world," he says. "Sitting here in Cambridge there are limits to the impact of our ideas if we don't engage well and engage broadly."

FT Lexicon
Keywords explained — Islamic finance

Islamic finance emerged in the early 1960s with the objective of developing and providing alternative financial contracts in conformity with sharia principles as necessitated by Islam.

The main principle is its adherence to interest or riba-free financial transactions.

Previously, various Islamic modes of financing were used in different parts of the Muslim world but the institutionalisation of Islamic finance in the form of banks and financial institutions became possible when the first Islamic social bank, Mit Ghamr Islamic Bank, was established in 1963 in Egypt.

The first Islamic commercial bank, Dubai Islamic Bank, was established in 1975.

Head to head Why curriculum needs politics

James Moore
Managing director

Business, Society and Public Policy Initiative at McDonough School of Business, Georgetown University

Silos are for farmers, not for business schools. The days of teaching finance, marketing and accounting in specialised fortresses as the sole path to business success have long passed.

Future business leaders demand an education that prepares them for grappling with the intersection of business, government and society. They need to understand the impact of public policy on the course of business and how they shape one another, as well as how businesses can be a significant agent for change in society. This is not just altruistic sentiment but a critical part of the formula for success.

In the US alone, business has become attuned to issues such as comprehensive healthcare reform, the changes coming to our telecommunications law, or imminent recalibrations in the policies of the Federal Reserve. All of this underscores how dependent business, government and society are on one another.

Business school students have a laboratory in which to understand the merits of communication, engagement, and co-operation within this critical intersection. They can come to learn by example that communication, engagement and mutual co-operation are critical to everyone's success.

Beyond domestic considerations, this convergence in a globalised world becomes even more striking. The continued onslaught of Isis, the outbreak of the Ebola crisis and the imposition of sanctions that follow the invasion of foreign lands remind future business leaders and the world of the harsh reality of the unexpected. Risk, anticipation and flexibility are critical to a business education that promises that leaders will graduate ready for a world where the best laid plans can be dashed in an instant.

Take cyber security for an example. With the rise of and dependence on the internet, both professional and amateur hacking have become a scourge to companies. As experts have concluded, there are now only two kinds of companies in the US: those who have been hacked and those who don't know they have been hacked.

The answer to this ever present threat will come only by concerted collective efforts that involve business, government and society at large.

There is every reason to believe that business will face even greater challenges ahead. Business schools need to be more attuned to the dynamics and possibilities that lie ahead and that means tearing down silos.

'The days of teaching finance and marketing in specialised fortresses have passed'
James Moore

'Recent policy initiatives could influence international business enormously'
Mike Bastin

FT Video
Merit Janow, dean of the School of International and Public Affairs at Columbia University
video.ft.com

Mike Bastin
Visiting professor

Beijing University of International Business and Economics

In May British voters will go to the polls in what appears to be the most unpredictable and uncertain UK general election in recent times.

Nowhere is this unpredictability and uncertainty felt more than in the business community, where clear policy differences exist across both major and several minority parties. But despite this there is still little or no inclusion of any aspects of the dominant UK or international political issues on MBA and related programmes.

The Conservative party's in-out referendum policy pledge on UK membership of the single European market, for example, is opposed by the Labour party.

It is of course not just the UK political system that carries considerable influence in business. Relationships with key political decision makers in emerging markets across Asia and South America are often cited as an absolute necessity if business plans are to succeed.

China, the second-largest economy in the world, presents perhaps a perfect opportunity to highlight this yawning gap between rhetoric on the importance of political systems and policies, and the paucity of detailed learning materials and in-class discussion reality.

The mainland China market plays an increasingly important part in most business education programmes, with detailed analysis of second and third-tier cities now as well as the usual first tier cities of Beijing, Shanghai, Shenzhen and Guangzhou.

Recent policy initiatives, such as the Asian Infrastructure Investment Bank and mergers across state-owned enterprises announced by China's central government, could influence the world of international business enormously.

However, we still do not see any attention given to the workings of the Chinese political system on business education programmes.

Immediate implementation of the following initiatives would lead to a more rounded business education: government ministers delivering guest lectures; case studies developed, updated and analysed on government policies and their implications; a regular Q&A session where MBA students represent each of the main and minority parties and the rest of the class form the audience and ask questions.

Paradoxically, globalisation may well lead to bigger and bigger (private sector) businesses and smaller and smaller governments, but government power and influence is on the increase and business students need to know more.

Get involved
Our pick of four initiatives for readers

How should business schools integrate public policy into the curriculum? How can you implement change on your course? Send your questions for our live Q&A with Profs Moore and Bastin on Wednesday April 22 2015, between 2pm and 3pm BST.

Last chance to enter our annual MBA Challenge with the International Rescue Committee, which invites students to help the IRC decide how best to deliver immunisation to children worldwide. Register now and we will match you to a team.

Are you a fan of *Capital in the Twenty-First Century* by Thomas Piketty? Or do you prefer *The Everything Store* by Brad Stone? Tell us about the best business book you have read for a chance to feature in the FT's Executive Education magazine next month.

Join our community, tell us what you think of our articles and receive daily email briefings on top stories for MBA students. We want to hear from you.

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A 30-year work anniversary is a freak event to be cheered

Lucy Kellaway
On work

Last week I celebrated my pearl anniversary at the Financial Times. For the past 30 years I have been pitching up to work at the same place, week in, week out, interrupted only by a succession of maternity leaves — all of which are now in the distant past.

Five years ago, when I had been working at the newspaper for a mere 25 years, I wrote a column about it, concluding that such long service, though excessively unfashionable, was more a good thing than a bad one. To celebrate that anniversary the FT gave me a cheque, and I spent the money on a heavy silver bangle, which I've now lost.

This time I had planned to draw a veil over the whole thing. There would be no columns and no silver bracelets. There is something mildly shameful about being almost the longest-serving journalist on the newspaper. I can think of only three others who have been on the FT longer, and one of those has the excuse of being the editor.

Worse still, I recently came across a "talent manager" who revealed that at the large company where she works they view 10 years as the right time to start edging people out, as by then they have become stale and insufficiently thrusting.

But last Thursday I cycled into work in the early morning sun, making a journey I've made many thousands of times before, and as I passed St Paul's Cathedral I found myself feeling not only unstale, but borderline joyful. Warren Buffett, I reasoned, has done 50 years at Berkshire Hathaway. Carol Loomis did 60 at Fortune. They prove it is possible to be with the same outfit forever without becoming a gormless, unimaginative loser.

When I got to the office on impulse I fired off an email to the entire newspaper inviting them to eat cake with me that very afternoon — and soliciting reflections on what 30 years' service means.

Loyalty — mixed with stupidity, one colleague replied. Wrong, I thought. Loyalty has nothing to do with it. I would have happily been disloyal; it just never seemed in my best interests. And as the media organisations I might have joined have subsequently been disgraced or impoverished or both, it didn't turn out to be so stupid either.

Narrow, suggested another. He had worked in lots of places and felt broader as a result. But is broadness a good thing per se? Surely narrow is fine if the work goes on being interesting and varied. If every day or week you have to find something comic or curious or new for an article or podcast or video, isn't that more than enough stimulation to last a working lifetime?

A third colleague, also a long-timer, complained that staying in the same place meant getting dragged down by politics and that old grievances fester. Possibly; though I see it the other way round. Long service has cut me adrift from politics and has meant I don't have to waste time working out who is trustworthy and who isn't, as I know that already.

Writing this, I am starting to feel defiant. Why am I apologising and explaining? When someone has been married for 30 years, they don't feel the need to justify themselves. Such stability is universally admired: it's a sign you have chosen wisely, and then made it work.

We don't approve of promiscuity in relationships, so why do we admire it in employment? I know someone who has worked at five different investment banks in eight years. Every time he has "passed Go" he has become richer, which is nice for him, but I don't see what is admirable — let alone broad — about it.

> We don't approve of promiscuity in relationships so why do we admire it in employment?

As pearl anniversaries at work are now freakish occurrences, they ought to be valued more than ever. Once upon a time long service implied that the person was too dull-witted to leave a dreary job; and that the employer was too benign to fire them. But now most places are relatively meritocratic; the hopeless are usually encouraged to shuffle off and be hopeless somewhere else.

Thus a 30 years' service suggests a mutual choice to stay together. As one of my colleagues said, my anniversary proves only one thing: that I have been very lucky. I have found somewhere I like, and that likes me too.

So as everyone gathered around and ate cake last Thursday, I chatted to people, some of whom I've known for 20 years and some of whom I'd barely met. It then occurred to me that you don't need to go to a new employer to get new colleagues. If you stay put, they come to you.

I asked one bright young man who has recently joined how he would feel to still be at the FT in 30 years' time, and he gawped at me speechlessly. This was partly because his mouth was full of cheesecake, but it was also because he simply couldn't imagine that amount of time. Which I suppose is fair enough — on that spring day in 1985 when I turned up at the FT for the first time, he wasn't even born.

lucy.kellaway@ft.com
Twitter: @lucykellaway

Monday interview. Ren Jianxin, ChemChina chairman

Adding Pirelli's rubber to the mix

Buying Italy's tyre maker opens a new strategic front for the head of China's biggest chemicals business, writes Tom Mitchell

Ren Jianxin: a far cry from the usual Chinese apparatchik chic in appearance and in approach to business Liang Zi/ImagineChina

Ren Jianxin, chairman of China's largest chemicals company, ChemChina, entertains visitors in a boardroom just down the hall from the group's Chinese Communist party general office, a mandatory feature at big state-owned enterprises and increasingly common at many private businesses too. It is a reminder that ChemChina's Ren Jianxin is, as head of one of the country's largest state companies, also a senior member the country's ruling party.

Mr Ren is also the prospective new boss of Pirelli, after he recently cut a deal to acquire Camfin, the investment vehicle that has a controlling 26 per cent stake in the Italian tyre company. That will be followed by a €7.3bn offer for Pirelli's remaining shares via a newly created holding company. If completed, the F1 sponsor's famous automotive tyre business will continue to be independently managed from Italy, while its industrial tyre business will be combined with a ChemChina subsidiary.

As 57-year-old Mr Ren enters the meeting room, it is immediately apparent that he is cut from a different cloth to his party and government peers. He is wearing a blue jacket with a white dress shirt open at the neck and makes no attempt to hide the grey in his hair. As such, his appearance is a far cry from the usual Chinese apparatchik chic — typified by buttoned-down cadres in dark suits and red ties, their hair dyed jet-black and often a pair of long-johns peeking out above the ankle on chilly spring days.

The fact that Mr Ren has asked three international media organisations, two Italian ones and the official China Daily to a hastily arranged briefing at 10am on a Sunday — or any time or day for that matter — is also unusual. When Dongfeng Motor, also state-owned, made a similarly high-profile European investment last year, paying €800m for a 14 per cent stake in French automaker Peugeot, it hid behind bland statements put out by its investment advisers. Dongfeng chairman Xu Ping, the driver behind that deal, routinely refuses interview requests from overseas media.

At first, Mr Ren also turned down interviews when his deal was officially announced on March 22. But within a week he realised that, even with Pirelli management and Italian politicians effusive in their praise for the acquisition, lying low was not an option for a captain of Chinese industry who is poised to take over one of Europe's best known brands.

His Sunday morning session, which begins as bells ring out at a Christian church opposite ChemChina's Beijing headquarters, lasts four hours including a late lunch of spicy beef noodles. A staple dish in northwestern China, where he was born and where he studied at university, Mr Ren likes *ma la mian* so much that he started his own restaurant chain, Ma La Noodles, in 1996.

He waxes eloquent about the wonders of noodles that can be "as thick as a chopstick or as fine as a human hair" and, with the Pirelli deal in mind, he comments that: "Producing tyres is like mixing flour for noodles — you need to get the rubber right."

The noodles are served, somewhat incongruously from both a culinary perspective and in light of Mr Ren's passion for all things Italian, with an Australian red wine. "I've only been to Italy twice but my impression is that creativity and innovation is in its people's blood," he adds. "It's no accident that a brand like Pirelli's grew out of Italian soil."

With the Pirelli deal not yet completed, Mr Ren wants to dissuade what he calls possible "blind" counterbids and also hopes to impress his Sunday media congregation with his own unique entrepreneurial credentials. ChemChina, he argues, is not among the coddled monopolists that are protected from real competition by authoritarian owners and fed a steady diet of cheap state bank loans. "We differ from other state-owned enterprises in terms of our history and development path," Mr Ren says. "We started virtually from scratch and have been exposed to market conditions the whole time."

Such a statement might usually seem a bit rich, coming from the head of one of China's largest state companies. ChemChina is one of 117 industrial champions that are directly administered by the Chinese government's State-owned Assets Supervision and Administration Commission. Moreover, ChemChina is ranked 276 on Fortune's Global 500 list of the world's biggest companies, with annual revenues of about Rmb300bn ($48bn).

But unusually for such a behemoth, ChemChina was established only a decade or so ago but its roots go back to 1984 when Mr Ren, then a cadre in his mid-20s with the long since disbanded Ministry of Chemicals Industry, began an industrial cleaning company with a Rmb10,000 government loan. This was a time when Chinese government officials began to *xia hai*, or "jump into the sea", of private commerce in large numbers. Because of its government financing, Mr Ren's company, Bluestar, was technically state-owned but was managed more like a private-sector start-up.

Over the next two decades, Bluestar would rise from a humble enterprise whose workers scrubbed tea urns and boilers to the top of China's chemical industry.

CV

Born 1958 in Lanzhou, Gansu province, northwestern China
Education Graduated from Lanzhou University
Career
Starts work at Ministry of Chemicals Industry
1984: Founds Bluestar
1980s-1990s: Acquisition spree, during which Bluestar acquires more than 100 other state companies; in 1996 launches Ma La Noodles (now a private company in which Mr Ren holds no shares) as a unit of Bluestar
2004: Establishes ChemChina
Family Married, one son and one grandson
Interests Walking, including 5km every morning

After a relentless acquisition spree in the 1980s and 1990s, during which Bluestar acquired more than 100 other state companies, its boss was dubbed China's "merger king" by admiring state media.

The group that emerged from this process became ChemChina, whose six divisions include Bluestar and the Aeolus Tyre arm, which is involved in the Pirelli transaction. Although he has spent his entire career in the state sector, Mr Ren speaks of his experiences as a newly minted internet billionaire might after listing his dotcom on the Nasdaq. "Every youngster has dreams and aspirations," he says. "I dreamt of building Bluestar into a big business."

Shortly after ChemChina was established, Mr Ren began buying overseas businesses too. These included France's Adisseo, which manufactures organic compounds used in products ranging from fertilisers to perfumes; the silicone and sulphide business of Rhodia, another French group; and Qenos, an Australian plastics group.

It was as if Mr Ren, having emerged victorious from a 20-year Chinese campaign, decided to turn his attention to foreign fields of battle.

The ChemChina chairman does not, however, welcome such martial analogies. "I don't like to call them acquisitions — it sounds too aggressive. I prefer to call them investments," he says.

"Of course, we value these assets themselves but we value co-operation with their management teams even more," he adds. "I am inundated with ChemChina's own challenges and problems. I don't have time to look after these investments personally."

He speaks in similarly generous terms of Pirelli's chief executive, Marco Tronchetti Provera, who will continue to run the Italian company until 2020. The 67-year-old Mr Tronchetti Provera also has the right to choose his own successor if he leaves before then. "Marco will be my role model," Mr Ren says. "I respect him as a teacher, an older brother and a friend . . . He is a very good man. If he wasn't a good man, how could I shake hands with him, let alone hold hands with him in this partnership?"

But, for all his graciousness, Mr Ren makes clear who is ultimately in charge in these relationships, albeit with a diplomatic emphasis on his "student" status.

"We are a strategic industrial player and anything less than a 51 per cent stake would make us a financial investor rather than a strategic one," he says. "I always say to our overseas CEOs that from an ownership perspective I am your boss, but from an operations perspective you are my teacher."

Second opinion

Consultant-turned-author

"We always hear about Chinese [tech] entrepreneurs like Jack Ma, Robin Li and Pony Ma, but Ren Jianxin has been just as successful in a much different context," says Joel Backaler, who was a consultant for ChemChina's Bluestar after Blackstone took a stake, and wrote about ChemChina in *China Goes West*.

"The key to the Pirelli deal's success will be [whether] Ren allows Pirelli to operate fairly autonomously . . . or merges two very different firms too quickly," he adds.

Working smarter

Touch wood for greater happiness in the office

EMMA DE VITA

Forget clean white spaces; if you want to optimise your working environment, clad your office walls in recycled timber, says Melissa Marsh, founder of US design consultancy Plastarc. Ms Marsh is a proponent of "neuro-architecture"; not in this case, the structure of neurons, but a way of thinking about building design that uses the findings of neuroscience. It has been billed as the next big thing in workspace design, although "the things that we are learning have been known by many architectural professionals for a long time", says Ms Marsh.

Take the idea that people experience their working environments with all their senses. "Sounds, smells, colours and lighting . . . all make a huge impact on our experience; meanwhile, design typically focuses exclusively on look," she says.

Seen in this way an office that looks good might be an awful place to work. It is easy to be put off by lunchtime smells wafting from nearby kitchenettes or amplified conversations in glass-walled meeting rooms.

Fans of neuro-architecture are interested in how the effects of nature on the human brain can be applied to the built environment. Ms Marsh says that "signs of nature, from grass and trees to water, tell our brains that we have found an abundant space that might be safe to linger. The absence of fear to eliminate stress is essential to knowledge work and concentration." She adds that the materials that surround you can affect your work performance.

That is why she thinks recycled wood will be discovered as a great workspace material. Its rough surface causes the diffraction of sound waves and so absorbs noise, she says. The grain of rough-hewn wood serves as a "powerful" reminder of the natural world. And, "if the wood is hand cut, or seemingly hand cut, then we also imagine the work of the craftsman, which is valuable, and a pleasurable change from environments filled by things which were made by machines."

Ingi Erlingsson, co-founder and creative director of animation studio Golden Wolf, based in Shoreditch, London, has embraced recycled timber in a big way. The walls are clad in it and the desks are made from it.

"The original thinking was to have the whole space like a shed," explains the Icelander. "This was back in 2011 and wood was really in. You'd see it a lot in bars and restaurants, so it was about creating a place where people would want to spend time."

He says that "the nice thing about wood is that it is welcoming. Because it is imperfect, distressed wood, it takes the pressure off because all the mistakes have already been made so it doesn't matter if you spill something. The mood is more relaxed. The office was a brand new space and it made it feel lived in".

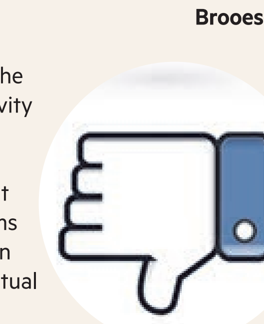
He is less starry eyed than Ms Marsh about the effects of wood on productivity and laughs when asked if it has made any difference to his staff. "It's hard to draw a conclusion that the wood makes us more productive but it makes people feel happy to be working here."

workingsmarter@ft.com

Feedback

Emma De Vita examined how obsessive checking of social media is making employees less productive in last week's Working Smarter column. Readers tut-tutted:

No wonder the UK productivity levels are so low, displacement activity seems to have taken over from actual work. The Millennials have morphed into the Distractionals. **Wriggley**



Not just a Millennials thing in my experience — it's all of us! It seems pretty obvious to me that social media is underlying low UK productivity. Look at the number of comments made on FT.com during working hours! I see a lot of people openly surfing the net in my office, at all times of day. **Brooess**

A friend of mine who owns a manufacturing business makes sure all phones are left in the break room. It does not take long to figure out [who is] running back every 10 minutes to text or look to see if anyone has sent them text . . . he says there are some real addicts, who just cannot break themselves free and focus on their work **E.Scrooge**

ARTS

Swift, sleek Shakespeare is a play for today

THEATRE

Measure for Measure
Silk Street Theatre, London
★★★★☆

Sarah Hemming

What makes a good leader? It's a question that preoccupies Shakespeare in much of his work, never more so than in this troubling account of a Duke who leaves his deputy in charge, resulting in a period of deadly authoritarian rule. In Declan Donnellan's riveting modern-dress staging (a co-production between Cheek by Jowl and Moscow's Pushkin Theatre), the play becomes a gripping moral thriller. The all-Russian ensemble plays it as if it were written yesterday and while the staging never explicitly makes connections with contemporary Russia, Isabella's words about the corrupting dangers of power ring out more clearly than ever.

It begins with what looks like a playground game. The cast roams the stage, compacted together like a shoal of fish. Not a word is spoken, but every now and then one figure becomes isolated. This silent prelude seems fanciful at first, but it traces out themes in the drama — the interplay between leader and people, between government and individual — and establishes the physicality of this swift, sleek staging. From here on, the chorus is ever-present, cowering behind giant red boxes to watch what is happening, scurrying from scene to scene and then retreating to leave the spotlight on whoever is to feel the heat next.

It's excellent, sharp storytelling, ensuring that although the text is delivered in Russian (with English surtitles), the narrative is clear. Individual motives, meanwhile, are revealed as complex and compromised. Andrei Kuzichev's small, trim Angelo is chilling as he warms to his newfound power, neatly stacking paperwork as he pronounces death on "fornicator" Claudio. But when Claudio's sister Isabella, a nun, comes to plead for her brother, Kuzichev becomes downright creepy, running his hands down the legs of her chair as he is seized by lust for her. His subsequent demand puts everyone concerned in moral torment.

Pertinent: Petr Rykov as the condemned Claudio in 'Measure for Measure'. Right: Vadim Muntagirov and Laura Morera in 'La Fille mal gardée'

Johan Persson
Tristram Kenton

Alexander Arsentyev's Duke, meanwhile, a fidgety, flustered man who struggles with the public expectations of office, appears to grow in understanding through his sojourn, in disguise, among the victims of Angelo's punitive rule. But while he manages to avert disaster, questions remain, not only over his initial retreat from responsibility but also over the happy ending he engineers.

Donnellan draws out the ambivalence of the final scene, with Anna Khalilulina's excellent, shell-shocked Isabella staring dumbfounded at the Duke as he proposes to her. It's a richly-layered, urgent telling of a play that feels more pertinent than ever.

cheekbyjowl.com

THEATRE

Death Of A Comedian
Soho Theatre, London
★★★☆☆

Ian Shuttleworth

In some ways, Owen McCafferty's play revisits the territory of Trevor Griffiths' 1975 classic *Comedians*. But where Griffiths showed a whole group of trainee comedians before, during and after their tryout gig, McCafferty deals with one wannabe funny man only, and centres on four individual gigs from "shit-hole" to arena. The central pressure is the same: how far to compromise for success. However, McCafferty's three-handed structure — comedian Steve Johnston, his girlfriend and candid adviser Maggie and his new agent Doug — makes for a much simpler dynamic. It's difficult to avoid the recollection of Doctor Faustus with his Good and Evil Angels whispering into each ear.

Brian Doherty, under the direction of Soho Theatre supremo Steve Marmion, gives a fine, detailed performance as Steve. From gig to gig, not only the cadence patterns of his delivery change as he gradually jettisons political and social references and retreats into "observational" material and plain lies, but his very accent shifts from identifiably Irish to a regionless, classless blare. Katie McGuinness gives firm support as Maggie, but it's always clear that she will at some point fade into the background, leaving Steve to deal alone with the temptations offered by Shaun Dingwall's motormouthed Doug . . . who never gives instructions, merely invites Steve to think about various points and relies on his insecurity and ambition to do the rest.

McCafferty is artist-in-residence at the Lyric Theatre in Belfast, and this marks the first ever cross-Irish-border co-production between the Lyric and Dublin's Abbey, along with the Soho Theatre. About a year ago Soho hosted the Abbey's production of McCafferty's pared-down, intense Troubles memory drama *Quietly*. Alas, neither the writing nor the performance of *Death Of A Comedian* can match that work's pressure-cooker power.

Compromise-for-success and Faustian temptation are not exactly neglected themes, and the use of stand-up comedy as an environment does relatively little to freshen them up. The comic material is fairly up to date (although even here McCafferty exaggerates by implying that a 2015 mainstream British comedy audience would be alienated by a single F-bomb), but overall — notwithstanding a final moment of tension which may be real or imagined — it's a disappointingly simplistic treatment.

To May 16
sohotheatre.com

DANCE

La Fille mal gardée
Royal Opera House, London
★★★★★

Clement Crisp

There may be greater ballets than Frederick Ashton's *La Fille mal gardée*, just returned to the Covent Garden repertory, but while we are watching it, we know that it is the best, the happiest thing in the dance world. So it proved in a performance of heart-touching emotion and heart-stirring bravura, led by Laura Morera and Vadim Muntagirov. I remember it from its first performance in 1960, but since then I do not recall one more exhilarating, more true in catching those joys of young-love triumphant, pastoral sweetness, sunlit feelings, which are the matter of this blessed work.

To particulars. Laura Morera plays with a charm of temperament and technique that cannot be faulted. We love this Lise, wish her every happiness as Morera treasures and illuminates her choreography with joyous grace and sweetest emotion. Lise enchantingly lives.

Vadim Muntagirov gives the impression that he has been waiting with some impatience to play Colas, and now embellishes the role with those gifts of dramatic intelligence and technical finesse and power to produce a reading of most splendid effects. Steps are done with an exultant joy and heart-lifting clarity. Feelings — ardent young love, youthful grace — fire the role. Not since Mikhail Baryshnikov (decades ago) have I seen a dancer so joyously right in his interpretation.

I delight in Will Tuckett's Widow Simone, a merry and credible old biddy who is an Olympian clog-dancer, and in Paul Kay's Alain, dazzling in step and true in feeling. And in Gary Avis's bluff Thomas. And the company performance was worthy of this masterpiece. Two quibbles: the dawn in Act One verged on the blast furnace-y, and recorded thunder managed to trump Rossini's orchestral aces during the storm. These ancestral lilies need no gilding.

roh.org.uk

THIS EVENING'S TELEVISION

Pick of the day

Silicon Valley (Sky Atlantic 10pm) returns, a wonderful mixture of whiz-kid geekiness, corporate machiavellianism and profanity. A brilliant deadpan cast and script dispel forever the criminal slander that Americans have no sense of irony. (Pictured: Thomas Middleditch, left, and T.J. Miller, far left.)

If you accept the premise that a failed cop living down his guilt by starting an isolated countryside B&B is talked into sheltering police witnesses, then **Safe House** gets off to a good start (ITV 9pm). Christopher Eccleston guards a family against a killer with a mysterious grudge. Tension mounts.

Stoppard adapts Greene in **The Human Factor** (BBC4 10pm): espionage, loyalty, human complications. Fine acting (Nicol Williamson, John Gielgud) vitiated by Otto Preminger's plodding direction. — MARTIN HOYLE

BBC 1

6.00 **BBC News.**
6.30 **BBC Regional News Programmes.**
7.00 **The One Show.**
7.30 **The Leader Interviews: Ed Miliband.** Evan Davis interviews Labour leader Ed Miliband in the run-up to the general election.
8.00 **EastEnders.**
8.30 **The Great Housing Benefit Scandal — Panorama.** How some landlords are making big money by taking advantage of the housing benefits system.
9.00 **MasterChef: The Finals.** The hopefuls enter the last week, cooking a five-course dinner in memory of Winston Churchill and producing a dish inspired by a personal hero
10.00 **BBC News.**
10.30 **BBC Regional News and Weather.**
10.45 **Have I Got a Bit More News for You.**
11.25 **The Graham Norton Show.** R

BBC 2

6.00 **Eggheads.** R
6.30 **Antiques Roadshow Detectives.** Paul Atterbury examines the role of a paddle steamer used during the Dunkirk evacuation.
7.00 **The Mekong River with Sue Perkins.** R
8.00 **Alex Polizzi: Chefs on Trial.** New series. Alex Polizzi finds new head chefs for restaurants that have a desperate need to fill a vacancy.
9.00 **Inside Harley Street.** A 27-year-old wants liposuction on her thighs.
10.00 **Jack Dee's Election Help Desk.** The comedian is joined by Romesh Ranganathan and Katherine Ryan to offer advice on issues relating to the general election.
10.30 **Newsnight.**
11.15 **Weather.**
11.20 **Snooker: The World Championship.** Highlights of the concluding session.

ITV London

6.00 **ITV News London.**
6.30 **ITV News and Weather.**
7.00 **Emmerdale.**
7.30 **Coronation Street.**
8.00 **Wild Ireland.** Christine Bleakley climbs Knocknarea mountain, explores sea arches and caves by kayak, and visits Blacksod Lighthouse on the Mullet Peninsula.
8.30 **Coronation Street.**
9.00 **Safe House.** New series. An ex-detective and his wife turn their Lake District guest house into a safe house. Drama, with Christopher Eccleston.
10.00 **ITV News at Ten and Weather.**
10.30 **ITV News London.**
10.40 **The Agenda.** Tom Bradby presents the political discussion show.
11.20 **Slow Train Through Africa with Griff Rhys Jones.** R

Regional variations apply

Channel 4

6.00 **The Simpsons.** R
6.30 **Hollyoaks.**
7.00 **Channel 4 News.**
7.55 **Party Election Broadcast.**
8.00 **Food Unwrapped.** Jimmy Doherty investigates the benefits of mineral water and Kate Quilton finds out about the production of vegetable oil.
8.30 **Travel Man: 48 Hours in Marrakech.** Richard Ayoade and Stephen Mangan tour the Moroccan city, tasting its famous street food, taking a hot-air balloon ride and visiting the historic Saadian tombs. Last in the series.
9.00 **Skint.** Locals gather for a charity boxing event in Merthyr Tydfil.
10.00 **Raised by Wolves.** Della goes on a date. Last in the series.
10.35 **8 Out of 10 Cats Does Countdown.** R
11.35 **The Island with Bear Grylls.** R

Other channels

BBC3
7.00 Indiana Jones and the Last Crusade. 9.00 Gay and Under Attack: Reggie Yates' Extreme Russia. 10.00 Russell Howard's Good News. 10.30 EastEnders. 11.00, 11.25 Family Guy. 11.45 American Dad!

BBC4
7.00 World News Today. 7.30 Railways of the Great War with Michael Portillo. 8.00 Medieval Lives: Birth, Marriage, Death. 9.00 Kim Philby — His Most Intimate Betrayal. 10.00 The Human Factor. 11.50 Timeshift: How to Be Sherlock Holmes — The Many Faces of a Master Detective.

Channel 5
6.00 Home and Away. 6.30 5 News Tonight. 7.00 The Gadget Show. 8.00 Police Interceptors. 9.00 Gotham. 10.00 Person of Interest. 10.55 Lock Up.

More4
7.00 Ramsay's Kitchen Nightmares USA. 7.55 Grand Designs. 9.00 Location, Location, Location. 10.00, 11.05 24 Hours in A&E.

Film4
6.55 Lemony Snicket's A Series of Unfortunate Events. 9.00 Double Jeopardy. 11.05 The Paperboy.

Sky Atlantic
6.00 House. 7.00 Blue Bloods. 8.00 Without a Trace. 9.00 Game of Thrones. 10.00 Silicon Valley. 10.35 Thronecast. 11.05 Last Week Tonight with John Oliver. 11.40 The Newsroom.

Sky Sports 1
6.45 Live Premier League U21s Football. 9.15 Fantasy Football — The Highlights. 9.45 FL72 Review. 10.45 SPFL Round-Up. 11.15 Soccer AM: The Best Bits.

Sky 1
6.00 Futurama. 6.30, 7.00, 7.30 The Simpsons. 8.00 Modern Family. 8.30 Driving School of Mum and Dad. 9.00 Futurama. 9.30, 10.00, 10.30 The Simpsons. 11.00 Arrow.

Sky Arts 1
6.00 Cirque du Soleil: Dralion. 8.00 Joseph Calleja — A Night in Malta. 10.00 Playhouse Presents: Nosferatu in Love. 10.30 Sensitive Skin. 11.05 1992.

Sky Arts 2
6.30 South Bank Masterclasses: Edward Watson. 6.45 Batons, Bows and Bruises. 8.00 The Elaine Paige Show. 9.00 Urban Secrets. 10.00 Hollywood in Vienna.

Sporting View
FINANCIAL TIMES

Explore more sports data analysis and visualisation in our series at **ft.com/baseline**

Unleashing the inner sportswoman

There is more than a whiff of paternalism about two big campaigns on both sides of the Atlantic to encourage more women into sports.

In the UK, Sport England's much-praised #thisgirlcan advert — which has been viewed more than 13m times online — revolves around the astounding fact that exercise often involves getting out of breath.

And this week sportswear giant Nike has launched a somewhat suspiciously similar campaign in the US, #betterforit, which has the equally profound message that you need to practise to get better at sports.

However sceptical you are about the campaigns' concepts, it is worth thinking about how infrequently billboards — let alone TVs — around the country are filled with pictures of women actively doing sport.

A glance at the UK sporting schedules for the next couple of weeks shows that aside from the London marathon, the next sight of elite female athletes in most households will not be until the Badminton horse trials in May. While equestrianism is one of the few sports in which women compete alongside men at a world-class level, the requirement to have a horse puts participation beyond the means of many.

Men looking for role models or inspiration to get off the couch have a far wider diet. Football, cricket, snooker, motorsport, cycling and rugby union — sports showcasing a huge array of male physiques and talent — will all be beamed into British living rooms over the next few weeks.

If you are a woman — or a young girl — what do you have? Perhaps the most visible British female athlete is Olympic gold medal winner Jessica Ennis-Hill, an image of veritable — and unobtainable — physical perfection. Even she is more often seen on billboards advertising products, rather than plying her trade.

Or you have champions in sports that require access to substantial kit, such as a horse or a boat which, despite notable efforts from sporting bodies to widen their appeal, are still mainly the preserve of the middle classes.

Figures from the Sutton Trust also show that of the British women who won medals at the 2012 London Olympics, 46.5 per cent attended selective schools — either fee paying or grammar — but only about 7 per cent of the population is educated privately.

Sport England will get its first hint of whether its campaign has had any impact in June, when the next set of numbers on how many Britons participate in sports are published. It estimates 2m fewer 14 to 40-year-old women than men play sport regularly in the UK — despite 75 per cent saying they want to be more active.

Nike, after all, is not spending big money on a new advertising campaign for altruistic reasons: it is betting that it can expand its womenswear line from $5bn a year at present to $7bn by 2017.

This is where the differences between the two campaigns grate. The Sport England campaign deliberately casts non-models and features an array of accessible sports from boxing to football on an urban artificial pitch.

The Nike campaign, by contrast, remains focused on the body beautiful, and far more traditional female activities such as yoga, running and studio cycling. One particularly jarring clip, called "Inner Thoughts", shows a woman admitting being intimidated by the presence of models in her spin class. There is no noticeable difference in physique between her and them.

But, in the end, the more women are encouraged to do a wider range of sports, the better. Not just for the nation's health — and goodness knows we all need to be fitter — but for its sporting future. Talent, the real talent that wins medals, does not have to come from the playing fields of elite schools.

British Cycling has proved that participation and elite success do go hand in hand: 15 per cent more women now cycle recreationally once a week than four years ago, while its women's team continues to break records and win medals — and hails mainly from state school backgrounds.

Years ago, I was one of a group of children running around on a rundown, sloping, plastic, all-weather tennis court — a venue to give elite coaches kittens — ineffectively trying to hit a hockey ball.

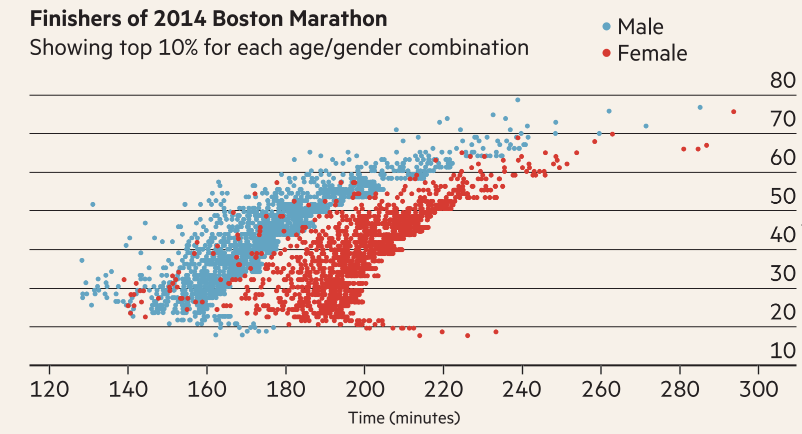
Sporting wise, most of us never amounted to much, but fast-forward 20 years and I had the privilege to be in the stadium when one of those children won a bronze medal with the Great Britain's women's hockey team. You never know where that future talent may come from.

Gold standard: the most visible British female athlete is multi-event specialist Jessica Ennis-Hill — Michael Steele/Getty

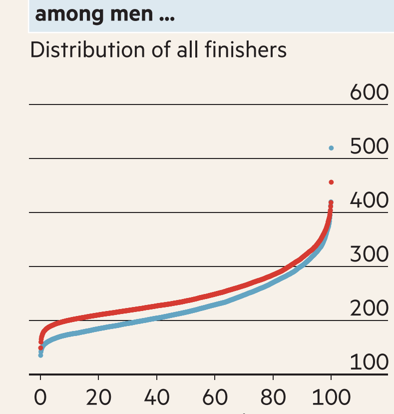
Emily Cadman

The Baseline

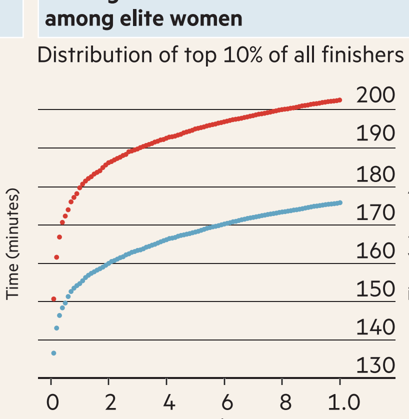

A tale of two tails



More variance among men ...



... but greater variance among elite women



Source: Thomson Reuters Datastream Photo: Dreamstime

JOHN BURN-MURDOCH AND GAVIN JACKSON

The Boston Marathon takes place today, with tens of thousands of entrants expected to cross the finish.

Marathons are rare examples of sporting events where performance data are often available for elite and amateur competitors, providing large and diverse data sets for exploration.

Last year more than 30,000 took part in the Boston event, split broadly equally by sex, and spanning an age range of 18 to 81.

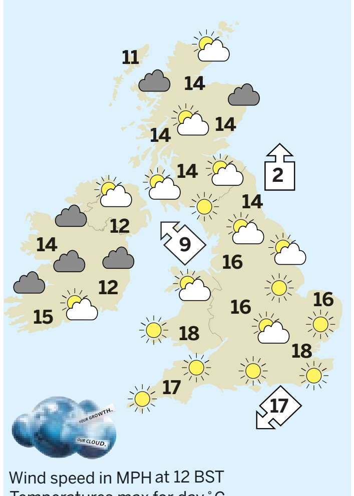
Unsurprisingly, the top performers were in their late 20s, where most of the elite field were found, but the interesting patterns lie in the male-female distributions.

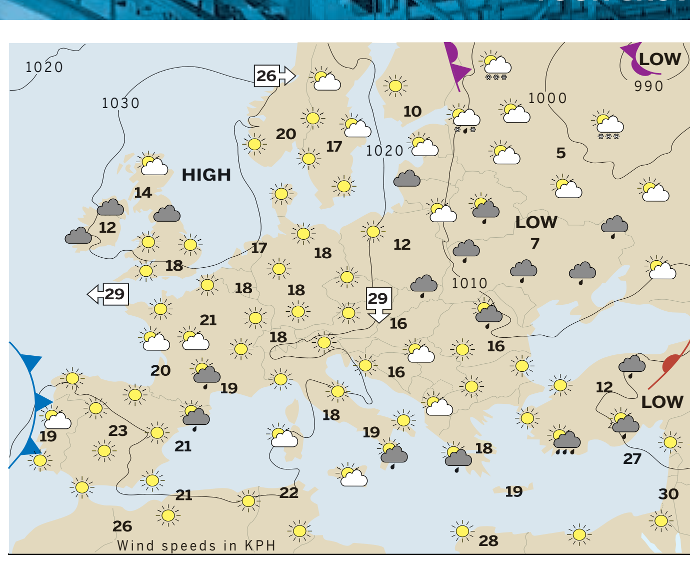
As the left plot shows, a significant number of elite women crossed the line with similar times to the better-performing men. This in itself is no surprise; what's interesting is how quickly that pattern peters out further back in the field.

The explanation is all about how finishing times varied between and — more importantly — across genders.

There was a greater range of completion times among the men than the women, but at the fast end of each sex's distribution, the pattern was reversed — women showed a far higher variance in pace. In other words, the top 1 per cent of women ran faster than the next 1 per cent by a bigger margin than was the case among the men.

WEATHER



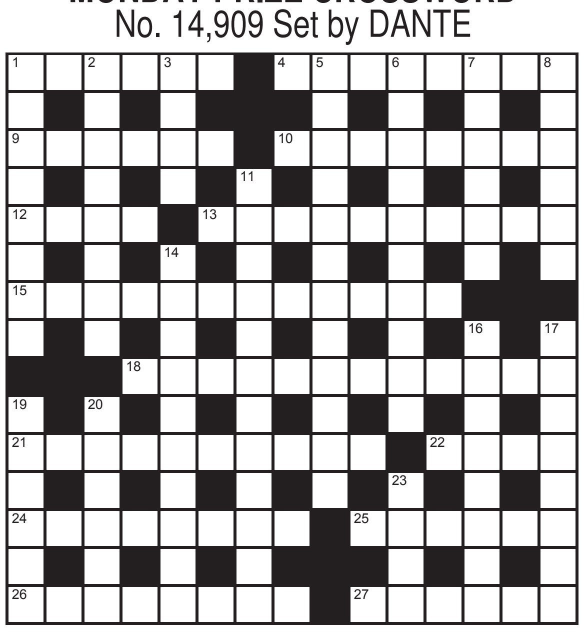


Forecasts by MeteoGroup

Today's temperatures — Maximum for day °C & °F — Warm front — Cold front — Occluded front

Abu Dhabi	Sun	31	88
Amsterdam	Sun	17	63
Athens	Shower	18	64
B'ham	Sun	16	61
Bangkok	Sun	39	102
Barcelona	Shower	19	66
Beijing	Sun	22	72
Belfast	Fair	13	55
Belgrade	Fair	16	61
Berlin	Sun	18	64
Brussels	Sun	18	64
Budapest	Fair	16	61
Buenos Aires	Sun	24	75
Cardiff	Sun	18	64
Chicago	Rain	13	55
Cologne	Sun	19	66
Copenhagen	Sun	16	61
Delhi	Sun	40	104
Dubai	Sun	30	86
Dublin	Fair	12	54
Edinburgh	Cloudy	14	57
Frankfurt	Sun	20	68
Geneva	Sun	19	66
Glasgow	Fair	14	57
Hamburg	Sun	18	64
Helsinki	Fair	10	50
Hong Kong	Rain	29	84
Istanbul	Sun	13	55
Jersey	Sun	16	61
Lisbon	Fair	19	66
London	Sun	18	64
Los Angeles	Fair	19	66
Luxembourg	Sun	18	64
Lyon	Fair	20	68
Madrid	Sun	23	73
Manchester	Fair	16	61
Miami	Thunder	31	88
Milan	Sun	21	70
Montreal	Rain	10	50
Moscow	Snow	5	41
Mumbai	Sun	34	93
Munich	Sun	16	61
New York	Thunder	15	59
Nice	Sun	18	64
Paris	Sun	21	70
Prague	Sun	15	59
Reykjavik	Rain	9	48
Rio	Fair	32	90
Rome	Fair	18	64
San Francisco	Fair	18	64
Stockholm	Fair	14	57
Strasbourg	Sun	20	68
Sydney	Shower	17	63
Tokyo	Thunder	19	66
Toronto	Thunder	16	61
Vancouver	Sun	17	63
Vienna	Sun	16	61
Warsaw	Fair	12	54
Washington	Thunder	25	77
Zurich	Sun	18	64

MONDAY PRIZE CROSSWORD
No. 14,909 Set by DANTE



A prize of The Good Word Guide by Martin Manser and How to Sound Clever by Hubert van den Bergh will be awarded for the first correct solution opened. Solutions by Wednesday April 29, marked Monday Prize Crossword 14,909 on the envelope, to the Financial Times, 1 Southwark Bridge, London SE1 9HL. Solution on Monday May 4.

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ACROSS
- **1** Gate catch, perhaps (6)
- **4** Detect Diana's disguise (8)
- **9** About to lose, being careless (6)
- **10** Said sale was fixed and became aggressive (8)
- **12** Regretted, we hear, being discourteous (4)
- **13** Opera, if not comic, might be grand (10)
- **15** Where a strike will be the best option (7,5)
- **18** Girl we hear presuming to transfer figures (5,7)
- **21** Hardcastle is converted in several religious places (10)
- **22** This may lead to the light (4)
- **24** Checking the accuracy of someone else's account (8)
- **25** Enemy Zulu leader going rounds causing ferment (6)
- **26** About to start, seas break over ship, so reconsider (8)
- **27** He's lawless – a little grasping also (6)

DOWN
- **1** Brad wore working clothes (8)
- **2** Humiliating return from a summit meeting? (8)
- **3** Take it away from work (4)
- **5** Where unmarried person's records go, one behind the other? (2,6,4)
- **6** Masters of the Rolls? (10)
- **7** New love takes credit for providing a secure bond (6)
- **8** Get your own back? (6)
- **11** Only personal impressions but admissible as evidence (12)
- **14** They are made ready to meet their match (10)
- **16** Spoke French for the sake of peace (8)
- **17** Supporter seen here and there, on the move (8)
- **19** Possibly made clear about one cream-cake (6)
- **20** A way to lift opera in large arenas (6)
- **23** Trendy accountant who lived in S America (4)

SOLUTION 14,897

C	I	R	C	L	E		A	D	V	A	N	C	E	D
O		E		U				R		L		A		E
N	E	V	A	D	A		K	E	E	P	A	T	I	T
T		O		O		T		S		S		T		R
R	O	L	L		B	O	A	S	T		A	L	T	O
A		V		D		T		I		I		E		P
C	L	E	A	R	W	A	R	N	I	N	G			
T		R		E		L		G		U		P		G
			K	A	L	E	I	D	O	S	C	O	P	E
N		B		D		C		O		E		W		N
O	A	R	S		C	L	A	W	S		E	D	G	E
I		O		E		I		N		H		E		R
S	E	A	S	C	A	P	E		H	A	I	R	D	O
E		C		H		S				L		E		U
S	C	H	O	O	N	E	R		H	O	R	D	E	S

The winner's name will be published in Weekend FT on May 2

Companies & Markets

FINANCIAL TIMES

Private party Cargill celebrates ownership structure as 150th birthday approaches
ANALYSIS, PAGE 20

Descalzi declares Eni chief on a need for stability, tie-up prospects and a potential return to Iran
INTERVIEW, PAGE 19

Cameron woos small investors over Lloyds shares sell-off

Spirit of Thatcher invoked again with offer of £4bn stock in bailed-out bank

JIM PICKARD
— CHIEF POLITICAL CORRESPONDENT

David Cameron has sought to channel the spirit of Margaret Thatcher for the second time in a week by promising that retail investors will take part in a £9bn post-election sell-off of Lloyds Banking Group shares.

Mr Cameron had earlier said that a Conservative government would extend Right to Buy to housing associations, a move that was heavily criticised by property experts.

The Tories have suggested seven times since 2010 that there could be a sale of Lloyds shares to retail investors in the vein of Mrs Thatcher's 1980s privatisations, including British Gas with its "Tell Sid" adverts. Instead the share sales have been to big City institutions.

Mr Cameron's plans for Lloyds involve offering £4bn of its stock to small investors with a minimum investment of £250 and a cap of £10,000 on any individual investment.

The stock would be offered at a discount of at least 5 per cent to the Lloyds share price, with a "loyalty bonus" worth up to £200 per person, comprised of one additional free share for every 10 shares held for a year.

A further £5bn of shares held by the state would be sold to institutional investors. The cost of the giveaway to the government would depend on the size of the discount and the Lloyds share price at the point of the privatisation.

The previous Labour government put £20bn of taxpayers' money into Lloyds during the financial crisis, leaving it with a 41 per cent stake in the bank, which was in dire straits after rescuing troubled HBOS.

This has been cut to less than 22 per cent through sales to institutional investors that began in September 2013. The government holds £12bn of shares, and the Tories want to sell three-quarters of those within the next year.

"The £20bn bailout of Lloyds bank by the last Labour government became a symbol of the crisis that engulfed the British economy under Labour," said Mr Cameron yesterday on BBC1's *Andrew Marr* programme. "After the public bailed it out, people feared they wouldn't see their money returned. Today they are."

> Shadow chief secretary Chris Leslie said the Tories had been announcing the idea since 2009 – just before the last election

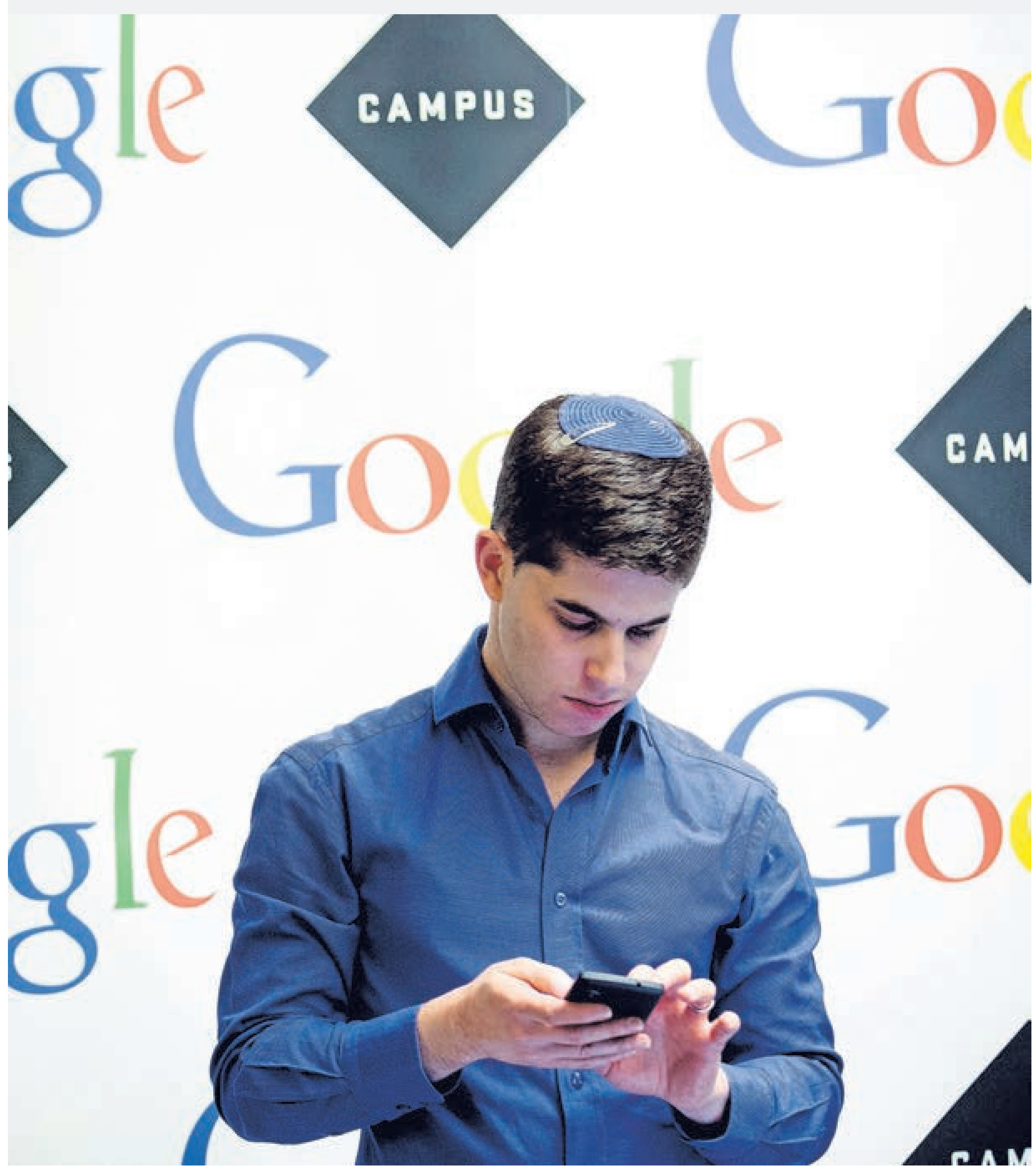
The average cost of the bailout was 73.6p per share and its subsequent share sales have all been above that price. Lloyds shares closed on Friday at 78.75p, up 6 per cent in the past year.

Chris Leslie, shadow chief secretary to the Treasury, said the Tories had been announcing the same idea since 2009 — months before the last election.

"The most important thing is getting best value for money for the taxpayer," he said. "That's why we have said all the proceeds from selling back the government's stakes in Lloyds and RBS should be used to repay the national debt."

An Opinium poll for The Observer yesterday put the Tories four points ahead of Labour, while YouGov in The Sunday Times had Labour ahead by three points.

Pulling rank Google's 'mobilegeddon' overhaul set to result in demotion for EU's website



Search dominance: Google warned companies in February of 'a significant impact' — Dado Ruvic/Reuters

ROBERT COOKSON
— DIGITAL MEDIA CORRESPONDENT

Google will this week refurbish the way its search engine recommends websites on mobiles, an algorithmic shift that is likely to penalise many sites, including those of Microsoft and the European Union.

It will today start updating its secret formula for ranking sites to favour those that are "mobile friendly," while demoting sites that fail to meet its criteria. Experts in search engine optimisation have dubbed the shift "mobilegeddon", suggesting that companies unprepared for the change will suffer heavily as a result.

In a twist, the EU, whose antitrust chief this month accused Google of illegally using its dominance in online search, is one of those likely to be hit.

An online test provided by Google showed that the EU's Europa website was "not mobile-friendly". It contains text that is "too small to read", links that are "too close together", and content that is wider than the screen.

"Those without a mobile-optimised site may no longer rank on page one . . .", said online marketing group The Search Agency UK. People rarely browse beyond the first page of Google's search results. Research by Somo, a mobile marketing agency suggests Versace, Microsoft's Windows Phone and Legal and General will be among groups affected.

Google warned in February that the algorithm update was coming. It said than that changes "will have a significant impact on our search results."

Web security start-ups pull in $1bn after hack attacks

HANNAH KUCHLER — SAN FRANCISCO

Cyber security start-ups have raised $1bn for the first time in a quarter as investors bet that demand for their services will soar after high-profile attacks by hackers on companies such as Sony Pictures and Home Depot.

Venture capital firms including Andreessen Horowitz and Kleiner Perkins, as well as the venture capital arms of banks and technology companies, are pouring money into the sector in expectation of rapid growth in cyber security budgets.

Funding for cyber security companies hit $1.02bn in the first quarter, up from $540m for the first three months of last year, according to data from private company research firm PrivCo.

That was on top of an already buoyant 2014, in which security start-ups hit $2.3bn in funding, up more than a third from the year before.

Four years ago, total annual funding was less than $1bn.

Sam Hamadeh, PrivCo chief executive, said that the record levels of funding were spurred by ramped up corporate spending and predictions that smartphone security was becoming a serious problem for companies whose employees deal in sensitive data from their mobiles.

"Within cyber security, venture capitalists were most interested in mobile security, which was the most active subsector of the quarter for new venture fundings," he said.

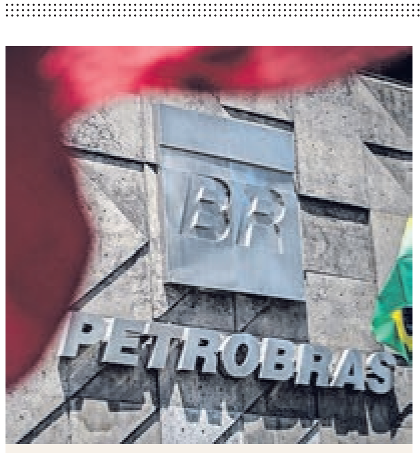
"Cyber attacks against enterprises have spread from the server and the desktop to the worrisome soft target of mobile phones, where not only files but stored passwords, emails, text messages, even actual phone calls could be spied upon with malware."

Venture capitalists will be out in force at the RSA conference this week in San Francisco, the biggest cyber security gathering in the world.

Many observers forecast a boom in cyber security mergers and acquisitions, as bigger companies acquire start-ups for their technology and their talent.

Leading cyber security start-ups such as Rapid7 and Veracode are prime candidates for listings, analysts say.

Hacker-fighting page 18



Petrobras' hopes rise of avoiding debt default

Petrobras shares surged 60 per cent from their lows ahead of the expected release this week of its delayed 2014 results — needed to avoid a technical default. The move lifts hopes that it will emerge from a corruption scandal without defaulting on its debt.

Report ▸ PAGE 19

From PCs to burgers – surging dollar takes bite out of US blue-chip earnings

NICOLE BULLOCK — NEW YORK
ERIC PLATT AND ROGER BLITZ — LONDON

A surging dollar is expected to hit some of the largest US multinationals this week, as more than a fifth of S&P 500 companies report results for a quarter marked by a 9 per cent jump in their domestic currency.

Blue-chip behemoths such as IBM, General Motors, United Technologies, Coca-Cola and McDonald's are among those set to release earnings by Friday.

With the S&P up only 1.1 per cent this year, investors are concerned that several groups could emulate General Electric and Philip Morris, which each said last week that the dollar cut their revenues by nearly $1bn in the first quarter.

Fears of a new Greek crisis are resurfacing and US economic data have disappointed of late, but corporate earnings are likely to be a key driving force for US equities this year, said Russ Koesterich, global chief investment strategist at BlackRock. "For 2015, it will come down to earnings and whether companies can overcome a higher dollar."

Earnings reports so far have validated recent concerns over falling energy prices and a rising dollar that have led to the largest downgrade of earnings estimates since the financial crisis.

FactSet expects first-quarter earnings for the S&P 500 to decline 4 per cent and revenues to drop 3 per cent. But it expects earnings and revenues to be down 10 per cent for companies that generate less than half of sales in the US.

Between the end of October and mid-March, the dollar index — which measures the greenback against a basket of its peers — rose 15 per cent. The euro suffered its biggest quarterly fall against the dollar since it was created in 1999.

Currency swings are affecting a wide range of multinationals. Delta, the US airline, plans to suspend service to Moscow later this year because of the slide in the Russian rouble, and Tiffany & Co, the diamond retailer, expects US tourist traffic to remain under pressure.

Apple, which reports quarterly figures next Monday, has already warned that sales growth in the first quarter would have been more than $2bn higher if currencies were held constant.

Companies / Sectors / People

COMPANIES

Banks

Protest stirs over UK lenders' bonuses

Shareholders criticise practice of basing rewards on adjusted earnings

MARTIN ARNOLD AND DAVID OAKLEY

Big shareholders in UK banks want lenders to stop paying bonuses based on adjusted earnings that exclude fines, restructuring costs and non-core units, raising the prospect of protest votes at annual meetings starting this week.

"I'm really uncomfortable about banks paying themselves bonuses on the basis of core earnings, not statutory profit," said a top-20 investor in Barclays and HSBC, which both have AGMs this week. "It is something we are exercised about and we have told them so."

The practice means executives can pay themselves handsomely even if there is a drop in statutory earnings.

Some of the biggest shareholders told the Financial Times they would raise the issue with executives and consider voting against remuneration reports.

Although some companies outside the financial sector also use adjusted earnings to calculate bonuses, investors are more concerned about banks because many have large non-core units and hefty legal and restructuring costs.

A top-20 investor in HSBC and Standard Chartered, said: "It is typical of executive pay schemes that the banks and some companies exclude the bad stuff."

Antony Jenkins, Barclays chief executive, received a bonus of £1.1m — his first since he took the job in 2012 — partly based on adjusted profits rising 12 per cent to £5.5bn last year. But including non-core operations and the cost of legal provisions and restructuring, the bank made an attributable net loss for shareholders of £174m.

Barclays said in its annual report it had taken account of litigation costs in reducing Mr Jenkins's bonus from the maximum. A person close to the bank pointed out that dividends were also calculated on adjusted earnings.

Pirc, an investor advisory agency, has recommended shareholders to vote against the Barclays remuneration report, although ISS and Glass Lewis were in favour.

A top-20 investor in Barclays, Lloyds Banking Group and HSBC, said: "We are unhappy at the way [remuneration committees] favour the employees in the way they hand out bonuses by aligning all the good things to the bonus and stripping out all the bad things.

'This is an issue that could spark some rebellions at AGMs'

"It is a vexing issue. It is like comparing chalk and cheese. This is an issue that could spark some rebellions at AGMs over remuneration."

Royal Bank of Scotland partly based its bonuses on economic profit, a form of post-tax operating profit that strips out non-core operations. RBS made an attributable loss of £3.7bn last year, but excluding discontinued operations its pre-tax operating profit was £2.6bn.

Lloyds made a 25 per cent deduction to reflect "legacy conduct-related matters" such as a fine for Libor interest rate manipulation. The five biggest UK banks declined to comment.

Media

Comcast-TWC cable deal in the balance

GINA CHON — WASHINGTON
SHANNON BOND — NEW YORK

Comcast and Time Warner Cable will meet US justice department this week to try to allay the fears of antitrust officials about a merger of the country's two largest cable providers.

The $45bn deal, announced 14 months ago, would give Comcast-TWC control of about a third of US pay television and broadband markets.

Wednesday's meeting is crucial for the cable operators, which are eager to move forward with their tie-up after waiting more than a year for antitrust approval.

If the deal is blocked or falls apart because the companies cannot agree to concessions demanded by regulators, there would be repercussions across the cable industry.

The acquisition of Comcast customers by Charter — a cable, internet and telecoms group — would be cast in doubt, as would Charter's recently announced $10.4bn agreement to buy Bright House Networks.

Consumer groups, some lawmakers and content providers such as Netflix have come out strongly against the deal, saying the two companies would be able to raise prices for customers and charge content providers more to reach their audiences.

Bloomberg reported on Friday that justice department staff were nearing a recommendation to block the deal, and Wednesday's meeting, first reported by The Wall Street Journal, could result in the groups being pushed to agree to more concessions.

According to people familiar with the case, regulators are worried about the negotiating power Comcast-TWC could have over TV programmers, which obtain payments from cable companies to show their content.

But cable providers argue that such deals benefit programmers. Last year TWC was locked in a battle with CBS over how much the cable company should pay to show CBS-owned programming.

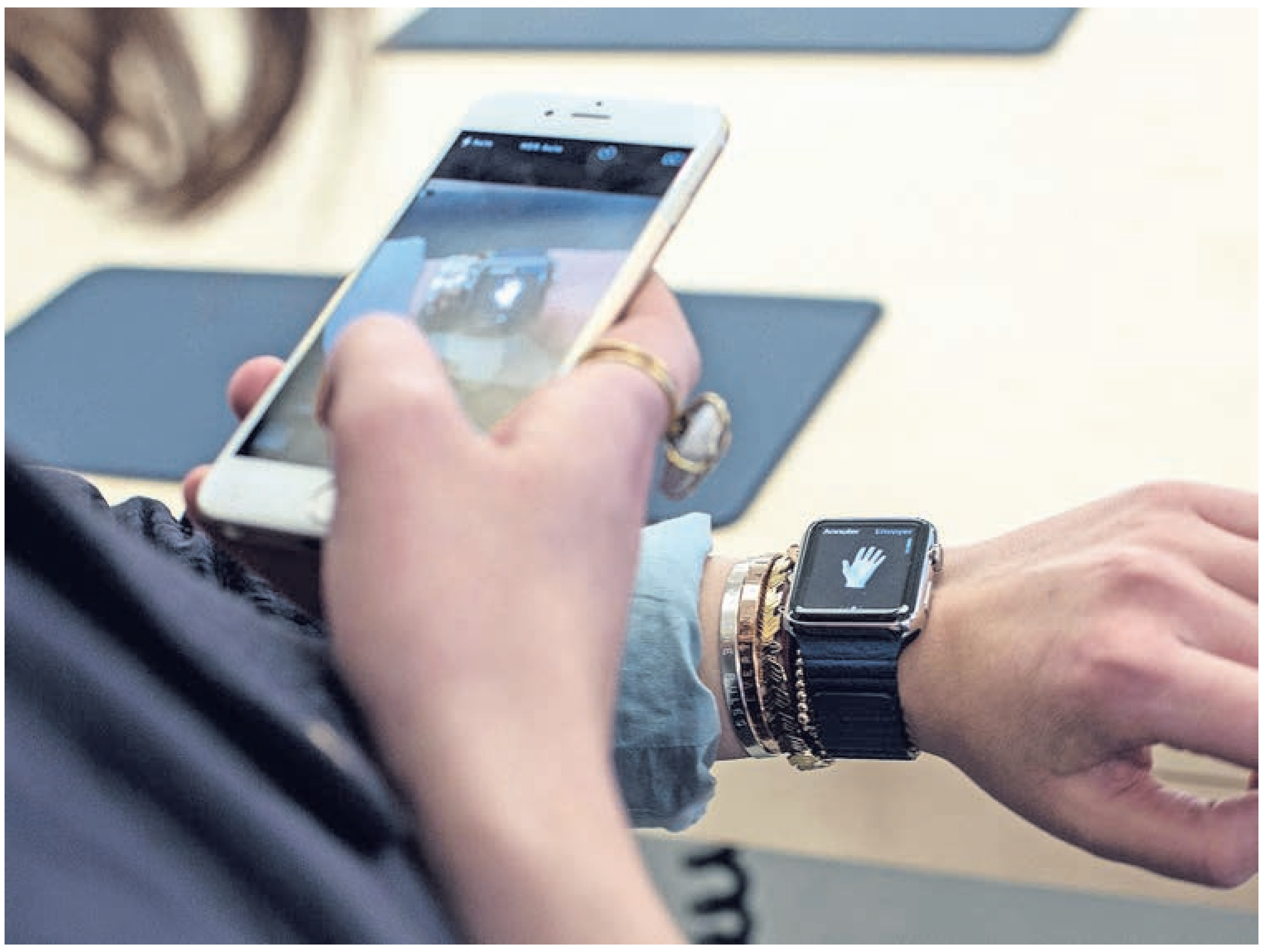
The disagreement caused a month-long blackout of CBS-owned networks, such as Showtime and the Smithsonian channel, for some TWC subscribers. The parties resolved their disagreement and CBS was given more favourable financial terms for its programming, although details were not disclosed.

TWC shares are trading 11 per cent below the value of Comcast's all-share bid, indicating that investors are sceptical that the deal will go ahead.

Comcast and TWC have argued that their merger will lead to improved service and have pledged to abide by net neutrality principles requiring them to treat all internet traffic equally.

Software

Instagram launches Watch app



Zooming in: the wearable device's tiny screen prompted a rethink of the smartphone app's image feed and features — Philippe Merle/Getty Images

Photo-sharing service had to go back to basics to fit Apple's latest device

TIM BRADSHAW AND HANNAH KUCHLER — SAN FRANCISCO

Instagram, which has built a billion-dollar business around smartphones, is making its first foray into wearable technology with an app for the Apple Watch.

The popular photo-sharing service, which is owned by Facebook, will use the smartwatch to alert users as soon as their close friends post a picture.

Instagram had stayed away from wearable devices, including Google's Glass headset and smartwatches such as those in Samsung's Galaxy Gear range.

But recreating its feed of pretty, magazine-like photographs for the Apple Watch's tiny screen prompted a rethink of the app to create "the simplest feed we could think of", according to Instagram designer Ian Silber.

"I think the Watch is really about quick information and notifications," he told the Financial Times. "It's a huge 'use case' [the steps that constitute a user's interactions with a system] that's going to be a little bit different."

Instagram has become the go-to app for many celebrities to post photos of themselves, and pop stars Drake, Pharrell Williams and Katy Perry, and fashion designer Karl Lagerfeld have used it to model Apple's high-priced Edition gold watch.

Just as the app largely displaced Flickr and other photo-sharing networks that were primarily established on PCs, Instagram is itself threatened by the arrival of a new app platform and the fresh challengers this will bring.

At first Instagram was unsure whether its service would be at home on the new device. Apple's own apps for the Watch focused on health tracking and the sending of messages.

It convened a "war room" of engineers and designers, with input from its founders Kevin Systrom and Mike Krieger, and began to try "a lot of sort of hacky things" to see what might work, according to Mr Silber.

Instagram did not have an Apple Watch to test apps on, so designers created prototypes on an iPhone screen that showed nearby photos or a list of the most popular pictures. The scope of the app had to be pared back to "something that feels pretty simple", to avoid overwhelming users.

Developers had to 'think about interactions in terms of seconds – it's get in and get out'

Users will receive notifications only for a handful of the people they follow. "With the Watch, it's about thinking about interactions in terms of seconds," said Mr Silber. "It's really about get in and get out."

Apple has strict guidelines for creating apps for the Watch, and third-party developers are restricted by what its Watchkit of tools will allow. Instagram tried to transfer its smartphone app's feature of double-tapping an image to "like" it, but Watchkit did not permit that feature.

"Developing for the Watch is definitely fun, but they kept it pretty scoped and limited," said Mr Silber.

"That's smart because it helps shape the types of apps that come out in version one . . . You don't want an app with a ton of features on your watch. You want one screen that tells you the most important information."

Other leading internet companies have redesigned their apps for the Watch —including Uber, the cab-hailing service; Shazam, a music identification app; and the internet group Yahoo.

Google, which is Apple's main rival in both smartphones and smartwatches, has not yet indicated whether it will join them.

INSIDE BUSINESS
ON MONDAY

Jonathan Ford

Time for StanChart to join rivals in facing up to emerging risks

When HSBC's chief executive has to promise to reduce the number of countries the group serves simply to keep shareholders sweet, it is a sure sign that global consumer banking is seriously out of favour. Last week the UK-headquartered bank was shown to have done just that. The Financial Times revealed that Stuart Gulliver intended to bring forward the sale of businesses in Brazil and Turkey as part of a plan to reassure investors by reducing its presence around the world — it has already pulled out of 20 markets.

Mr Gulliver is not alone in brandishing the pruning shears. HSBC's main global rival, Citigroup, has been trimming too. The US group has since 2012 cut its global consumer coverage by nearly half to 24 countries.

There are good reasons why these banks want to do less. Their multinational empires may once have been hailed breathlessly as unique assets. But following the financial crisis, regulators worry about far-flung businesses that managers do not always seem able to control or enjoin to follow western standards of conduct. HSBC's problems in Switzerland, where it enabled clients in other countries to avoid tax, or in Mexico, where it was the house bank for a local drug cartel, neatly illustrate the risks.

There is also a dawning realisation that taxpayers in the UK or US would not stomach a bailout of a bank whose operations were largely overseas. It is one thing stumping up to keep cash machines going in Scunthorpe or Spokane. It is quite another when the ATM is in Dubai.

Shareholders, meanwhile, fret about the absence of synergies. Products and market practices do not mesh across territories. Nor are there balance sheet advantages now that local regulators demand ringfenced local subsidiaries.

One bank has, however, largely avoided calls for shrinkage. Standard Chartered may recently have acceded to shareholder pressure to change chief executives: the former JPMorgan banker Bill Winters replaces Peter Sands next month. But the bank remains largely the unaltered product of the latter's expansionary nine-year reign.

It has sold some non-core consumer finance assets in Asia and Europe, and a few banking operations. The group has closed its institutional equity capital markets business. But it still boasts a presence in some 60 countries, most of them emerging markets.

Following the financial crisis, regulators worry about far-flung businesses

A change of approach may be hard for a bank that built its prowess on bold decision to pile into Asian countries in the wake of the region's debt crises in the late 1990s, dumping less exciting developed-market assets as it did so. But it may also be necessary. StanChart is more exposed to many of the risks that menace its larger rivals.

One concern is that the bank does not have enough capital to support its racy business mix. Not only is its 10.7 per cent core tier one ratio thinner than that of HSBC. It is well below the 12 per cent-plus average figure for Asian banking groups, most of which have a genuine country focus and are not, like StanChart, dotted across many markets where they are the fourth or fifth challenger.

And while the group is not as sprawling, say, as HSBC, StanChart scarcely has an unblemished management record. Its two run-ins with the New York Department of Financial Services over sanctions-busting not only cost it $640m. They showed it had the same problem as others in controlling what subsidiaries did.

A further issue revolves around the possibility of another emerging market crisis — perhaps triggered by rising US interest rates and the consequent retreat of hot money back to developed markets. There are already questions about the rigour of StanChart's credit policy, sparked by its exposure to commodities, debt-laden economies and single corporate names such as India's Essar Group. Non-performing loans have been creeping up.

But the worry is that the whole process of rebalancing could hit its slender capital ratio. Basel rules would bite if the credit environment soured, requiring StanChart to reflect that by increasing the risk-weighting of loans and thus to increase its equity cushion.

StanChart is more at risk of such an outcome than HSBC and Citi. Unlike them, it has no developed market business to benefit from the resulting flight back to western assets.

An emerging market slump in the late 1980s left StanChart vulnerable and attracted a hostile bid from a British rival, Lloyds Bank. This time the concern is not that the vultures will gather. It is that banks' unwillingness to shoulder emerging market risk — whether as equity underwriters or potential buyers — will leave StanChart on its own.

jonathan.ford@ft.com

Software. Start-ups

Hacker-fighting prowess on show as next generation lines up to go public

Investors flood cyber security conference as groups seek to avoid being the next Target

HANNAH KUCHLER — SAN FRANCISCO

When cyber security start-ups set out their stalls at the sector's largest conference today, they will be looking to show off their hacker-fighting prowess not just to buyers of security products, but also to Wall Street investors.

A new generation of cyber security companies is preparing to go public, as analysts predict a rise in spending by boards desperate not to be the next Sony Pictures, Home Depot or Target.

Dan Ives, an analyst at FBR Capital Markets, says investors will be flocking to the RSA Conference in San Francisco these week because cyber security is a $15bn-$20bn market opportunity in the next three years.

"It is going to be like a Bon Jovi rock concert," he said, recalling former days when you could "hear a pin drop".

Venture capital funds have been flooding into cyber security, surpassing $1bn for the first time in the first quarter of 2015, according to the private company researcher PrivCo. VC funding for security software start-ups hit $2.3bn in 2014. Four years ago less than $1bn was raised in a whole year.

Rapid7, a security data and analytics start-up; Bit9, which protects PCs; and Docusign, which enables signed contracts to be exchanged online, are tipped to be among those seeking to list.

Kathleen Smith, a manager of IPO-focused exchange traded funds at Renaissance Capital, said her watch list included LogRhythm, Zscaler and Apigee, which secures interactions with third-party applications and is set to go public next week.

Others linked with potential IPOs are Tanium, a large investment by VC firm Andreessen Horowitz, Skyhigh Networks, a Sequoia and Greylock investment, and Veracode, whose investors include fund managers Wellington Management and In-Q-Tel, which is backed by the CIA.

Venky Ganesan of Menlo Ventures, which invested in one of the few public next-generation security companies, Palo Alto Networks, said there could be between 20 and 30 IPOs in the sector in the next two or three years.

"They have had a major drought of cyber security companies . . . relative to the scale of the problem," he said. "Now I think we see the companies getting the increase in budgets, staying private and turning down acquisition offers."

Older antivirus companies have fallen out of favour, and most of the start-ups with newer solutions have yet to go public.

Total returns from the few companies to list have been high. Palo Alto has returned almost 250 per cent, Qualys about 330 per cent and Proofpoint almost 360 per cent since they listed in 2012, according to Renaissance Capital.

Enrique Salem, an investor at Bain Capital Ventures, which has stakes in Rapid7 and Docusign, said the interest stemmed from the most active threat environment he had seen in 28 years.

The rapid transformation from desktop to cloud, mobile and the internet of things was creating more holes for hackers to exploit. "We definitely see security IPOs performing well because of an increased demand for security — JPMorgan Chase doubled its security budget from $250m to $500m," he said.

David Cowan of Bessemer Ventures said: "In security, by definition, the incumbents are obsolete."

Additional reporting by Nicole Bullock in New York

COMPANIES

Interview. Claudio Descalzi

Eni calls for Opec and rivals to join forces

Italian energy group's chief says teamwork could help fend off swings in crude prices

CHRISTOPHER ADAMS AND JAMES POLITI — ROME

The head of one of Europe's largest energy groups, Italy's Eni, has called for co-operation between the world's big oil and gas producers — Opec, the US and Russia — to avoid a repeat of "destabilising" price moves such as the recent collapse in crude.

Claudio Descalzi, Eni's chief executive, told the Financial Times he expected oil prices to recover over the coming year, to about $70 a barrel, after a near 50 per cent plunge since last summer. A fall in US shale production, improving demand and reduced spending on projects would help recovery.

But he said it had become clear that the Opec cartel, led by Saudi Arabia, was no longer willing — or able — to act as the world's swing producer. After its decision in November not to cut output in the face of the US supply glut and weaker-than-expected Chinese demand, the market — vulnerable to sharper swings because of the growth in futures and other financial derivatives — lacked a stabilising force.

$70	58%
Eni chief executive's forecast for oil price this year	Forecast fall in European oil sector's first-quarter earnings

Mr Descalzi stopped short of suggesting formalised co-operation on output between Opec and other producing countries, but said "guidance" for the market was essential to encourage investment by the industry and to avoid sharp leaps in prices in the future.

"For the industry we need stability, and stability means guidance," he said, pointing to the huge volumes produced by the US and Russia as well as Opec. "We need co-operation among all the producers to stabilise the market."

His comments, on the eve of the energy industry's biggest annual conference, CERAWeek in Houston, reflect growing concern among oil executives over the impact of the price slide on revenues and profits. Barclays analysts are forecasting a 58 per cent average fall in European integrated oil groups' first-quarter earnings from a year ago.

Last month, Eni itself became the first of the energy majors to cut its dividend for 2015 in response to dwindling cash flows, a decision Mr Descalzi described as "not easy" but which met with a positive reaction from investors.

Mr Descalzi said he saw a "window of opportunity" for takeovers following Royal Dutch Shell's £55bn agreed offer for BG Group. He argued that assets in US shale-producing states and the Gulf of Mexico were likelier targets than European companies. Eni, however, had "no need" for acquisitions after a run of discoveries in sub-Saharan Africa. It is also planning €8bn of disposals.

Nevertheless, he said Eni was interested in returning to Iran if western sanctions were lifted — and were Tehran to offer production-sharing contracts. "That should be the fast way to restarting in Iran," said Mr Descalzi, who last met Iranian oil minister Bijan Zanganeh at an Opec meeting in 2014.

Eni's biggest geopolitical concern is Libya, just across the Mediterranean from Italy's southern coasts, where it has continued to produce as much as 300,000 barrels per day of oil equivalent, despite the deadly civil war still ravaging the North African nation.

"We are worried every day, every second about what is happening [in Libya]," said Mr Descalzi. "The first concern is about the security of our people and then the security of our assets."

Mr Descalzi would like to see the international community mount a "faster" effort to reach a peace agreement in Libya, which has eluded UN mediators. But he was adamant that Eni — which has operated in Libya for more than 50 years — would not see the security situation deteriorate to the point that it had to shut down production.

The Italian company produced gas to supply the domestic electricity market, keeping the lights on in Tripoli, which should make it less susceptible to attack. "Libyans are going to protect their assets; it's the most important thing they have."

Italian officials have argued that the security risks coming from Europe's southern flank are at least as threatening as those posed by the Ukrainian crisis. Moreover, Eni — considered by many to be a driver of Italian foreign policy — has, historically, had close ties to Gazprom, the Russian gas giant. This has made it a big advocate of dialogue between Russia and the West.

Indeed, Mr Descalzi is rooting for sanctions against Russia to be wound down as early as this year. "I hope that the situation on the ground allows Europe and the US to ease sanctions — it would mean we don't have war, we don't have fighting," he said.

Output challenges

'For the industry we need stability, and stability means guidance'

'We are worried every day, every second, about . . . [Libya]'

Claudio Descalzi says oil-producing countries could work together to encourage the industry to invest — Alessia Pierdomenico

Oil & gas

Hope rises that Petrobras will avoid default on $137bn debt

JOE LEAHY AND SAMANTHA PEARSON — SÃO PAULO

Investor optimism is rising that Brazil's embattled state-owned oil company Petrobras will emerge from a crippling corruption scandal without defaulting on its $137bn in debt.

Shares in the state-owned oil company have surged more than 60 per cent from their lows this year after Petrobras said it expected to release this Wednesday delayed 2014 financial results — seen as essential to avoid a technical default.

'If Petrobras releases its results . . . that will reduce some of the concern about the company and Brazil'

"If Petrobras releases its results, signed off by [independent auditor] PwC, without any doubt that will reduce some of the concern about the company and Brazil," said André Guilherme Pereira Perfeito, chief economist at broker Gradual Investimentos in São Paulo.

Petrobras said in November that its auditor, PwC, had refused to sign off on its 2014 financial results, raising the risk that it could trigger a technical default under some of its bond covenants.

The announcement sparked a crisis at Petrobras and in Brazil's oil and gas sector with it unable to access the credit markets to finance its investment programme, considered the largest corporate capital expenditure plan globally.

Petrobras was also the biggest emerging market issuer of overseas bonds over the past four years, according to Bloomberg data.

But the company, which has a final deadline of the end of May to release the results, said last week it would produce its financial statements by this Wednesday, sending its share price to R$13.01 by the close of trade on Friday, up nearly 62 per cent from its lows in January.

Analysts say the government, which is Petrobras's controlling shareholder, has flirted with disaster with its slow resolution of the issue. If Petrobras defaulted, it could trigger an energy crisis in Brazil, as it imports most of the nation's oil and is its sole refiner.

Federal police have accused former Petrobras executives and politicians as senior as João Vaccari Neto, treasurer of President Dilma Rousseff's ruling Workers' Party, the PT, of collaborating with contractors to cream billions from the company in kickbacks. Mr Vaccari, who was arrested last week by police as he was about to go for his morning run, has denied any wrongdoing while Ms Rousseff is not accused of involvement.

Analysts said that if Petrobras released the results, it would remove the most immediate risk. The focus would shift to its operational challenges, which include trying to increase oil output fast enough to enable it to reduce its debt.

The scandal has hurt Petrobras's supply chain, with many construction contractors and some equipment suppliers blacklisted from doing business with the company or facing debt problems.

Brazil's Schahin industrial group became the latest contractor to file for bankruptcy protection on Friday.

COMPANIES

Cargill set to keep it in the family 150 years on

Sixth-generation trading house remains committed to the private ownership structure that has defined it

GREGORY MEYER — NEW YORK
NEIL HUME — LONDON

When the largest shareholder in Cargill wanted out, management drew up a spreadsheet with 13 options.

One involved the world's largest trader of agricultural commodities offering shares to the public, but that idea was quickly dismissed in favour of another transaction completed in 2011.

"It was the very first to come off," said Greg Page, Cargill's executive chairman.

Four years later, Cargill remains equally committed to the private ownership structure that has defined the company as it approaches its 150th anniversary.

Executives say the US group will remain private for the foreseeable future, a decision that will shape not only Cargill but also the markets its touches.

"The generation of family leaders we have today like Cargill being private," said chief executive David MacLennan. "I really enjoy being a private company and the benefits we get from being privately owned."

Minnesota-based Cargill is one of the world's largest privately held companies by revenue. It dwarfs many of its rivals in terms of size and the number of agricultural raw materials it trades. It processes chicken meat in Russia, delivers soyabeans to China, and works with some of the world's biggest food and beverage companies, making sweeteners for Coca-Cola.

The span of businesses requires massive amounts of capital of different durations. Cargill needs short-term financing for purchases of corn, soyabeans and cattle, and it makes longer-term investments in assets such as vegetable oil refineries, pig barns, ports and ships.

Its management must also work with a sixth generation of family shareholders, who are further removed from the day-to-day running of the business than their predecessors.

The last family member to serve as chief executive, Whitney MacMillan, retired in 1995, and only one family member works full-time at the company. As a private group, Cargill funds investments with cash and debt rather than issuing equity.

This could limit its ability to make acquisitions even as some analysts predict a wave of dealmaking. Cargill's largest acquisition remains the $2bn purchase of Provimi, an animal nutrient company, in 2011.

The global flow of agricultural raw materials has historically been dominated by four firms, Cargill; Archer Daniels Midland; Bunge; and Louis Dreyfus Commodities.

But Cofco, China's state-owned grains trader, has just spent $3bn acquiring controlling stakes in several foreign food trading houses, putting it in direct competition with the others

Cargill is controlled by the roughly 100 members of the Cargill and MacMillan families, descendants of founder William Wallace Cargill. They hold 90 per cent of the shares with the rest in the hands of management and an employee stock ownership plan.

"We are going to have the shareholders that we deserve . . . so we need to be proactive to get their emotional as well as their financial attachment to the business," said Mr Page. "It is a two-way street."

Cargill's total shareholders' equity — equal to assets minus liabilities — was $28.2bn in fiscal 2014. But some shareholders have struggled to turn their net worth into cash.

"You had a number of owners who were very wealthy on paper, but had difficulty getting mortgages because their assets were not liquid," said Bob Kohlmeyer, a retired Cargill executive.

This problem has been addressed at two pivotal moments in the company's history, helping to defuse discussions about going public.

The first was the 1992 creation of the employee stock plan, which allowed family shareholders to tender 17 per cent of the company's shares for $700m, according to "Cargill: from commodities to customers", a history by Wayne Broehl.

The second moment was the 2011 deal to allow the company's largest shareholder, the Margaret A Cargill foundation, to diversify its holdings, which were heavily concentrated in Cargill stock.

Cargill spun off its 64 per cent stake in listed fertiliser company Mosaic and transferred $12bn in Mosaic shares to the foundation and other family shareholders. Cargill received $7bn in Mosaic shares which it used to pay down debt through exchanges with lenders.

> 'We need shareholders [with an] emotional as well as financial attachment to the business'

The Mosaic deal had met the foundation's needs without forcing Cargill to go public, said Benjamin Oehler, a former chief executive of Waycrosse, the family office for the Cargills and MacMillans. Mr Oehler added: "they were able to meet the liquidity needs of the family, I would think, for another generation".

Cargill's 17-member board now contains six family members, six independents and five directors from management. The company is allowed to reinvest 80 per cent of annual earnings back into the business, while the rest is paid as dividends.

That need to produce steady income for family members and inability to issue equity have also forced the board to think hard about which investments made sense.

Cargill sold a seed business in 1998 followed by its steelmaking business in 2004 after concluding they would be consume too much capital.

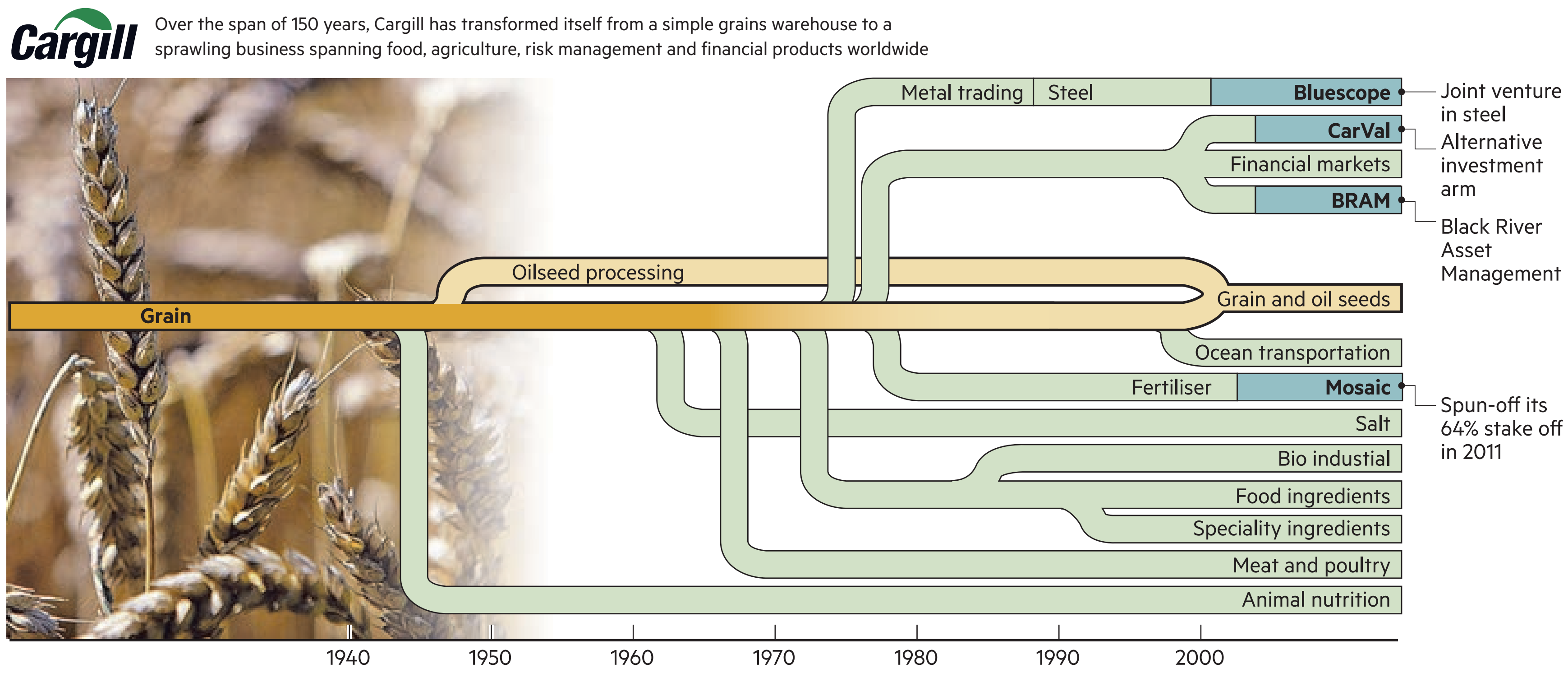
"To be so diverse that everyone gets a bit under-supported is a mistake," said Mr Page.

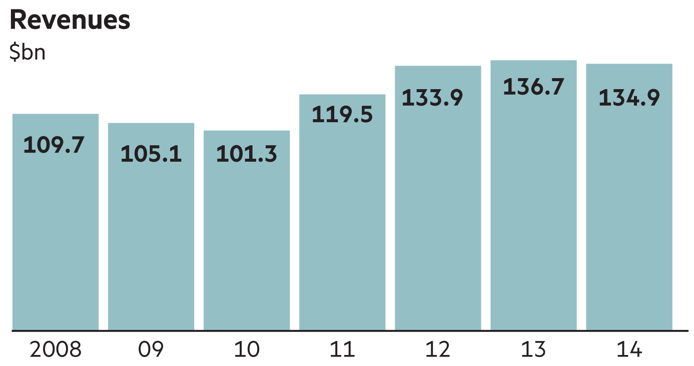
Executives say the corporate structure serves the company well and is one of the reasons why Cargill has survived and prospered when many of its rivals have either gone public or been acquired.

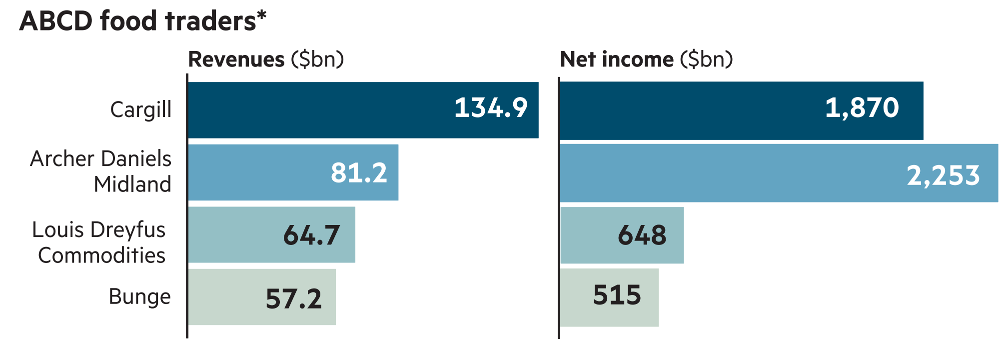
"Each board meeting is like a shareholder meeting," according to Bernard Poussot, the former chief executive and president of pharmaceutical company Wyeth, who was appointed a non-executive director in 2010. "You get immediate confrontation of views and discussion."

Increasing refinement

Over the span of 150 years, Cargill has transformed itself from a simple grains warehouse to a sprawling business spanning food, agriculture, risk management and financial products worldwide







Sources: Company; Thomson Reuters Datastream

*Dominate global flows of food commodities

$2bn Price paid for Provimi in 2011 — Cargill's largest acquisition

$28.2bn Shareholders' equity, equal to assets minus liabilities, in 2014

Background

Commodity handler that grew with the nation

Buying, selling and storing grain has been Cargill's core business since it was founded in 1865 by William Wallace Cargill, the son of a Scottish sea captain who emigrated to the US.

Starting with a single warehouse at the end of a new railway line in Iowa, the business grew quickly. As the railroads moved across the Midwest so did Cargill, building grain elevators and terminals on the newly settled prairie.

The Cargill and MacMillan families came together in 1895 when Mr Cargill's daughter Edna married John MacMillan, who took control when his father-in-law died.

It was not until 1960 that the founding families appointed an outsider — Erwin Kelm — to run the business. This was a key moment, says Barbara Spector, editor-in-chief of Family Business magazine. "There was a pivotal meeting when members of the fourth generation made the radical move of appointing a non-family leader for the business," she says. "They decided to search for the best people to run Cargill whether they were family or not".

Under Mr Kelm, Cargill moved into new markets and geographies. That continued under Whitney MacMillan, the last family member to run the company, who pushed it into beef, pork, poultry, and fruit processing, steelmaking, oil trading and fertiliser production.

Over its 150 years, Cargill has weathered many extremes in global agricultural markets. The company was nearly bankrupted in the early 20th century after investing in a Montana irrigation project and an unsuccessful railroad. It also ran into difficulties during the Asian financial crisis of 1997, when commodity demand plunged and it also lost money trading bonds amid Russia's debt default of 1998. *Neil Hume*

UK COMPANIES

INSIDE BUSINESS

Kate Burgess

Only investors with nerve bet on risky biotech start-ups

Everyone in the world hopes to find a cure for cancer. But thousands of private investors have staked hard-won savings on their dreams by investing in Aim's biotechnology start-ups.

There are three connected risks in backing drug and technology companies. The first is that of sinking cash in to treatments that never work. The second is that it can take decades for boards to accept that their ideas will never be commercial. And then there is the third danger facing ordinary investors: they are likely to be the least informed and the last to know when to throw in the towel.

Silence Therapeutics, which is testing ways of silencing the genes that cause tumours, is the latest biotech to tap investors for cash. Last week it raised £40m at 240p a share to help it realise the big ambitions of its management team, headed by Ali Mortazavi, the former City trader and professional chess player.

Silence Therapeutics has developed ways of editing genes and targeting diseases that are unrivalled, at least in Europe, claims Mr Mortazavi, talking fast from the back of a cab.

The business has been around since the mid-1990s, exploring ways of turning its research to commercial advantage. But like so many, it has failed so far. By 2012 Silence's investors had lost patience. The shares had hit a low of 38p, valuing the group at less than £10m, and it was "just weeks from going under," says Mr Mortazavi.

> Ordinary shareholders are the last to know when to throw in the towel

Three years ago he bought shares, joined the board and then brought in his former boss Richard Griffiths, as well as Robert Keith, a serial backer of technology ventures. Between the three of them, they own about half of the group's shares.

Mr Mortazavi and Mr Griffiths had worked together in the early noughties at Evolution Securities, a small aggressive brokerage firm chaired by Mr Griffiths, a former Welsh hill farmer, professional rugby player and a somewhat controversial and unconventional figure in the City.

Mr Griffiths quit Evolution in 2005 to focus his entrepreneurial spirit on backing start-ups. Mr Mortazavi did much the same from 2008 to 2012 until he alighted on Silence Therapeutics.

The former trader reckons he can get around the biggest pitfalls in biotech. Most drug businesses bet everything on a single drug or treatment, he says. His strategy is to spread that risk.

"Our plan is to have 50 ideas running in parallel. Traditionally, biotech relies on one idea but we have lots, so that we can dump the ones that don't work." He has set up a team to look actively for diseases that could use Silence Therapeutic's technology to "edit" genes. Its strength is that — in theory, at least — it can apply its treatment to any gene and many diseases.

It comes at a big price. Every year since becoming chief executive, Mr Mortazavi has called on investors for more cash, and in increasing amounts.

> 'Traditionally, biotech relies on one idea. Our plan is to have 50'

Mr Mortazavi has been lucky in his timing, though. The news on gene sequencing and therapies is beginning to look more promising. Market confidence in the sector has improved, helping him to win the backing of institutional investors including Henderson, Aviva and, most recently, Neil Woodford.

But savvy shareholders know what they are in for when they sink money into biotech. The cash calls will keep on coming, three out of four investments will fail and there will not be returns for years.

Even Silence's most advanced treatment — for pancreatic cancer — is only in early stage trials. Brokers Cannacord predict Silence will be still be making pre-tax losses of £11m in 2016.

That is the nature of backing biotech, says Mr Mortazavi. It is all about funding businesses early on, and hoping one will make a breakthrough that will catch the eye of a big drug company.

But the risk for small shareholders in biotech is greater. Investors may derive comfort that Aim players such as Richard Griffiths or Neil Woodford are on the register, seeing it as a confirmation of Silence's potential.

But big-name investors are not there to champion the interests of other shareholders. They spend time and money to gain the insights that give them an edge over rivals and tell them when to buy and when to sell.

As one market sage observes: "You wouldn't want to be a buyer if Woodford or Griffiths were sellers."

kate.burgess@ft.com

Interview. Addy Loudiadis, Rothesay chief

My job is to make sure we're IPO-ready

Insurer announces 33% jump in pre-tax profits as it gears up for potential £3bn listing

ALISTAIR GRAY — INSURANCE CORRESPONDENT

Addy Loudiadis: 'The UK is one large pension fund, with a couple of banks and aeroplanes. There's enough supply' Rosie Hallam

Construction workers are still putting the finishing touches to the Leadenhall Building, the City of London high-rise nicknamed the Cheesegrater.

But Rothesay Life has moved in, weeks before other tenants. The pensions insurer set up by Goldman Sachs has chosen the 47-floor landmark for its new headquarters — a symbol of its ambitions as it gears up for a potential £3bn listing.

In an interview interrupted by occasional drilling, Addy Loudiadis, the insurer's cerebral Anglo-Greek co-founder, sets out how she is getting the fast-growing business ready for the public markets.

She established Rothesay eight years ago after cutting her teeth as a banker at Goldman Sachs, where she gained experience arranging complex derivatives deals.

Since then it has become a big force in the "bulk annuity" industry. Companies have turned to it to cure headaches caused by their volatile pensions liabilities in return for a fee.

After striking a series of pensions megadeals, Rothesay provides life assurance for almost 200,000 people. Last year it paid £700m of pensions.

Yet a listing would come just as analysts are warning about increased competition. The life sector is being shaken up by chancellor George Osborne's overhaul of the pensions regime, which has caused sales of individual annuities to collapse.

To make up the shortfall, mainstream insurers have piled in to the corporate market, in which Rothesay specialises along with rival Pension Insurance Corporation.

James Mullins, partner at the pensions consultant Hymans Robertson, is expecting more insurers to enter the bulk annuity market this year, which "will dramatically increase competition and push down prices".

Ms Loudiadis, 50, who has two children, says 2014 was "probably our worst competition year".

Returns were nevertheless "spectacular", she adds, and forecasts that the market will continue to grow. The company is set to publish annual results today showing a 33 per cent jump in annual pre-tax profits to £244m.

"The UK is one large pension fund, with a couple of banks and aeroplanes," she says. "There's enough supply."

Companies have been striking pensions insurance deals even when interest rates have been at rock-bottom, she says, making transactions relatively more expensive for them. "If rates were up another per cent or two, there would be a floodgate."

Bulk annuity providers bear two big types of risk: that the assets that back the payouts generate weaker returns than expected; and that pensioners live longer than forecast. "This is not a very easy business — you really need to know what you're doing. We are disciplined about our return. We don't chase business," she says.

Ms Loudiadis was born in Nigeria to Greek parents and attended Cheltenham Ladies College. After joining Goldman in 1994 she climbed the ranks, becoming a partner and co-head of its European investment banking division.

In 2001 the Oxford maths graduate helped Greece meet European deficit rules by arranging a derivatives deal years before the country's debt crisis.

Ms Loudiadis, who is keen on yoga, is matter-of-fact about the potential dangers facing the pensions derisking industry. "The cure for cancer is anecdotally the worst thing that could happen to a business like this," she says.

Rothesay's insured pensioners are forecast to live 17 years beyond retirement. An unexpected leap forward in longevity would hurt profits.

Still, by reinsuring about 70 per cent of the life expectancy risks it has taken on, the group has shielded shareholders from the brunt of them. It also has a conservative investment strategy.

Ms Loudiadis would like Rothesay — whose other shareholders include Singapore's sovereign wealth fund and the Blackstone investment house — to increase its assets under management from £13bn to at least £15bn before it floats.

"Scale does matter here. We would like another year [before listing], where we have the chance to prove categorically that we're profitable, and we're consistent," she says.

However, she adds: "Our job is to make sure that our shareholders have that [flotation] option — that if they do want liquidity, we are IPO-ready."

General financial

Rothesay complains of 'noise and puff' over funding scheme

ALISTAIR GRAY AND GILL PLIMMER

Rothesay Life's chief has warned that the pensions group is set to reduce investments in UK infrastructure, complaining authorities made "noise and puff" about a flagship funding scheme but failed to fully deliver on it.

The pensions insurer, which manages almost £13bn worth of assets on behalf of retirement plans for staff at British Airways, General Motors and Philips, among others, ploughed £2bn into infrastructure projects last year.

But Addy Loudiadis, chief executive, said it was likely to cut back this year because a government scheme to support as much as £40bn worth of investments had been so disappointing.

> 'We haven't seen as much infrastructure as we would like'

"Unfortunately that pipeline hasn't materialised to the noise and puff that was rumoured," she said. "We haven't seen as much infrastructure as we would like."

The Infrastructure UK scheme was launched in 2012 to encourage lending to projects that had stalled during the financial crisis.

Under the terms, the Treasury guarantees that lenders will be repaid in full and on time — irrespective of the project's performance. It transfers construction risk to the government in return for a fee.

Rothesay has been one of the programme's most prominent backers.

The group was a lead investor in the first publicly issued bond backed by guarantee, which is funding the Mersey Gateway, a six-lane toll bridge being constructed near Liverpool.

Rothesay was also a lead investor in a bond issued by Transport for London, which is funding the flagship Crossrail train link and the Northern Line tube extension to Battersea.

A further 39 projects — including up to £17bn of funding for the Hinkley Point C nuclear power plant in Somerset — have been identified as eligible for the guarantee programme.

However, to date the scheme has approved support for only about £4bn of investment and it is due to wind up next year.

Richard Threlfall, head of infrastructure at consultancy firm KPMG, said the number and value of projects backed by guarantees had fallen significantly short of that expected when the scheme was first launched.

"As a consequence we have failed to unlock the expected flow of pension fund money into infrastructure in the UK," he said.

The National Audit Office issued a critical report about the programme last year. It said it was the most "lender friendly" scheme it had identified within the EU and urged the Treasury to consider whether the guarantees were "genuinely needed".

Ms Loudiadis said the guarantees were crucial for Rothesay as the nature of its liabilities means it seeks to invest in conservative assets. A third of its investment portfolio is allocated to UK sovereign debt.

"We feel quite happy and secure in government-guaranteed gilts. For us to stray away from that promise, the asset would have to come with a lot of collateral or security."

More companies news on FT.com

● A Malaysian telecoms group has begun work on a physical fibre in London to further plans to build the first land-based fibre internet infrastructure between Singapore and Hong Kong. Aries Telecom has appointed Panmure Gordon and Mirabaud Securities to explore options for an initial public offering, raising about £100m. www.ft.com/telecoms

● The chief executive of Towry, the acquisitive wealth manager and financial planner, says it is close to launching online services for its clients, as the group reveals sharp increases in assets under management and revenues for 2014. www.ft.com/financials

UK COMPANIES

General financial

Mid-caps shine with 20% leap in dividend payouts

FTSE 250 outperforms as groups avoid headwinds buffeting blue-chip index

ALISON SMITH
— CHIEF CORPORATE CORRESPONDENT

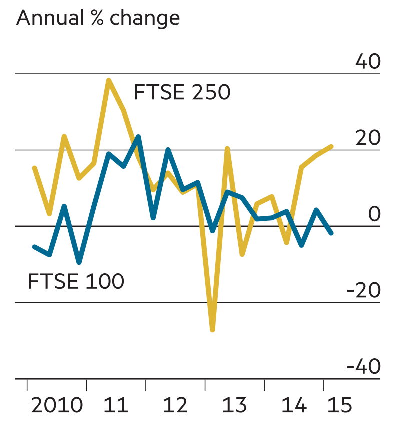
Underlying dividends paid out by FTSE 250 companies — generally seen as a proxy for UK industry — rose one-fifth in the first quarter of this year, while FTSE 100 companies turned in a broadly flat performance.

Capita Asset Services, which compiled the data, said the increase showed that mid-caps had benefited more from the expansion of the UK economy. It also suggests they have not had to face some of the headwinds that have hit the largest listed multinationals, including low growth in several overseas markets.

The result represents the most striking instance of FTSE 250 companies outperforming the index of larger companies in seven years of data analysed by Capita and marks a turnround from two years ago.

UK dividend growth

Annual % change



Source: Capita

In the three-month period at the start of 2013, underlying dividends from the FTSE 100 were again broadly flat, but income payments to investors from FTSE 250 groups fell by more than one-quarter compared with the previous year.

Since that low point, FTSE 250 companies have put in a better performance than the FTSE 100 group in six of the seven subsequent quarters.

In the first three months of this year, FTSE 250 companies accounted for £0.98bn of ordinary dividends, from a total of £14.49bn. In the same period last year, they accounted for just £0.81bn out of £14.53bn.

Dividend growth has been gaining momentum for months, rising from 15.5 per cent in the third quarter of 2014 to 18.6 per cent in the following period.

At its half-year results, for example, the storage space company Big Yellow Group said it was raising its interim dividend 30 per cent. And in March, the housing group Bellway said it was raising its full-year dividend more than 50 per cent.

According to Justin Cooper, a senior executive at Capita Asset Services: "Mid-caps seem to have had a far greater exposure to the revitalised UK economy, and have felt the full benefit of rising investment and the rejuvenated UK consumer. This has boosted their earnings, allowing for increasing returns for shareholders."

However, this quarter's underlying dividend outperformance by the FTSE 250 looks like the peak: Capita does not expect the pace of increase to continue.

"While prospects look strong for domestically sensitive sectors in the FTSE 250, such as housebuilders and general retailers, the current rate of growth is not sustainable in the long term," Mr Cooper said.

General retailers

An Automobile Association patrolman on the A5 trunk road in 1955; today the main problem is renewing subscriptions online — Charles Hewitt/Picture Post/Getty Images

AA wheels out long-awaited shake-up for the 21st century

ANDY SHARMAN
— MOTOR INDUSTRY CORRESPONDENT

The AA will today offer investors details about plans to reinvigorate the business weeks after completing a near-£1bn refinancing.

A new management team that carried out a buy-in last summer plans to bring the roadside assistance company into the 21st century by unveiling connected car technologies aimed at younger drivers and better monetising online services, such as AA Route Planner.

"This is a company that's had a three-year strategy for seven years," Bob Mackenzie, executive chairman, told the Financial Times. "There has been no investment in it in any shape or form."

The AA, formerly owned by Centrica, spent a decade under ownership by private equity groups including CVC, Permira and Charterhouse, and was latterly controlled with retirement group Saga under the Acromas consortium.

Mr Mackenzie, Nick Hewitt and former Permira partner Martin Clarke took over the business and executed a fast-track listing in June, backed by investors including BlackRock, Aviva and Neil Woodford. Since then the AA's shares have risen by two-thirds.

But it remains firmly in restructuring mode after the years from 2007 saw it loaded with debt — standing at just under £3bn in net terms — while advertising spending all but disappeared and IT systems and databases stagnated. Even today customers can register online but cannot renew via the website.

The AA, which operates a roadside assistance duopoly alongside the RAC, wants to boost the number of products it sells each customer. Only 11 per cent of members paying for roadside assistance — which accounts for about 75 per cent of the AA's operating earnings — buy some form of car or home insurance from the company.

In particular it is looking at marketing "black box" car insurance to the 160,000 young motorists who pass through the group's BSM driving school, the UK's biggest. "They just disappear," said Mr Mackenzie. "We don't even send them a letter of congratulation, let alone an email or a tweet."

The company is also keen to make better use of its Route Planner website, which helps theAA.com register 150m hits a year. Mr Clarke said the company was exploring ways of using the site to offer location-specific hotel, restaurant and pub discounts, from which the AA would take a commission.

Further opportunities in financial services include expanding its credit card and personal loans business and setting up an in-house underwriting service, which would enable it to offer better premiums to home and car insurance customers.

But the AA, which is spending £128m on IT over three years, will tell shareholders at an investor day today its main focus is on getting basic systems right.

Analysts such as Joe Brent at broker Liberum expect a decline in operating income this year, because of restructuring costs, and only limited interest savings from the refinancing.

"It all amounts to short-term pain for long-term gain," he wrote in a recent note to clients.

Mr Mackenzie said: "It's very easy to get very excited about what we may be able to do. But it would be nice if our customers could renew online."

MARKET DATA

WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

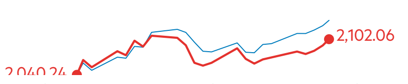
S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
0.52%	-1.52%	-1.54%	-0.93%	-1.76%	-1.17%	-0.31%	-0.98%	0.654%	0.403%	-0.226%	0.279%	-0.88%	-0.08%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison

AMERICAS

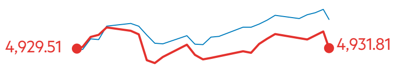
Mar 11 - Apr 10 — Index — All World

S&P 500 New York



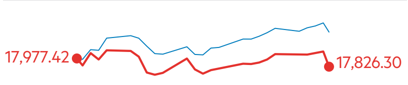
Day 0.52% Month 1.09% Year 12.28%

Nasdaq Composite New York



Day -1.52% Month NaN% Year NaN%

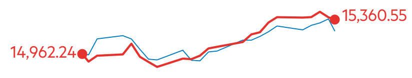
Dow Jones Industrial New York



Day -1.54% Month NaN% Year NaN%

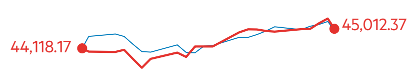
Mar 18 - Apr 17 — Index — All World

S&P/TSX COMP Toronto



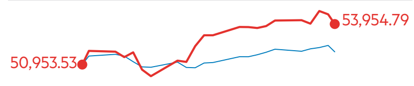
Day -0.17% Month 3.10% Year 5.93%

IPC Mexico City



Day -1.03% Month 2.86% Year 10.08%

Bovespa São Paulo



Day -1.32% Month 7.30% Year 3.54%

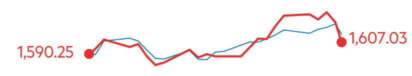
EUROPE

Mar 18 - Apr 17 — Index — All World

FTSE 100 London

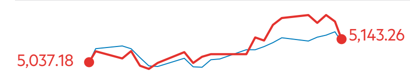
Day -0.93% Month 2.29% Year 5.56%

FTSE Eurofirst 300 Europe



Day -1.76% Month 1.45% Year 20.93%

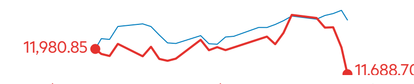
CAC 40 Paris



Day -1.55% Month 1.62% Year 16.74%

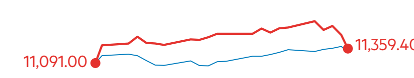
Mar 18 - Apr 17 — Index — All World

Xetra Dax Frankfurt



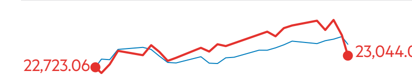
Day -2.58% Month -2.44% Year 24.22%

Ibex 35 Madrid



Day -2.17% Month 2.20% Year 10.63%

FTSE MIB Milan

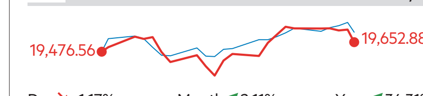


Day -2.40% Month 1.41% Year 6.62%

ASIA

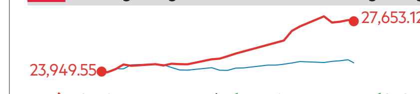
Mar 18 - Apr 17 — Index — All World

Nikkei 225 Tokyo



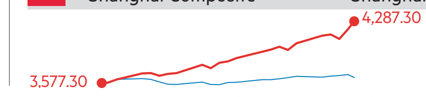
Day -1.17% Month 2.11% Year 36.31%

Hang Seng Hong Kong



Day -0.31% Month 15.46% Year 21.84%

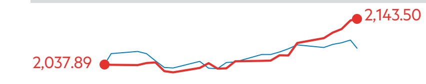
Shanghai Composite Shanghai



Day 2.20% Month 24.29% Year 103.66%

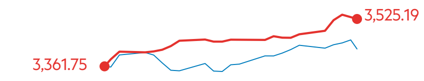
Mar 18 - Apr 17 — Index — All World

Kospi Seoul



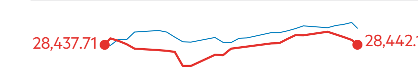
Day 0.17% Month 7.86% Year 7.59%

FTSE Straits Times Singapore



Day -0.18% Month 4.42% Year 11.76%

BSE Sensex Mumbai



Day -0.78% Month 0.02% Year 27.67%

Country	Index	Apr 17	Apr 16
Argentina	Merval	11920.08	12065.87
Australia	All Ordinaries	5851.50	5917.60
	S&P/ASX 200	5877.90	5947.50
	S&P/ASX 200 Res	3425.40	3450.80
Austria	ATX	2589.56	2634.99
Belgium	BEL 20	3785.49	3859.43
	BEL Mid	5754.78	5866.41
Brazil	Bovespa	53954.79	54674.21
Canada	S&P/TSX 60	894.96	896.60
	S&P/TSX Comp	15360.55	15386.77
	S&P/TSX Met & Min	705.29	714.65
Chile	IGPA Gen	19518.29	19733.38
China	FTSE A200	12054.42	11818.55
	FTSE B35	13214.15	13303.51
	Shanghai A	4492.08	4394.65
	Shanghai B	392.71	397.60
	Shanghai Comp	4287.30	4194.82
	Shenzhen A	2233.77	2223.09
	Shenzhen B	1339.63	1344.51
Colombia	COLCAP	1367.14	1362.53
Croatia	CROBEX	1736.46	1736.37
Cyprus	CSE M&P Gen	80.46	80.68
Czech Republic	PX	1048.74	1056.75
Denmark	OMXC Copenhagen 20	967.92	983.59
Egypt	EGX 30	8886.84	8896.68
Estonia	OMX Tallinn	889.39	891.63
Finland	OMX Helsinki General	9083.27	9287.73
France	CAC 40	5143.26	5224.49
	SBF 120	4038.55	4103.18
Germany	M-DAX	20898.67	21033.69
	TecDAX	1618.51	1654.33
	XETRA Dax	11688.70	11998.86
Greece	Athens Gen	729.81	752.37
	FTSE/ASE 20	215.47	222.39
Hong Kong	Hang Seng	27653.12	27739.71
	HS China Enterprise	14536.67	14720.13
	HSCC Red Chip	5358.24	5323.72
Hungary	Bux	21326.99	21900.53
India	BSE Sensex	28442.10	28666.04
	S&P CNX 500	7093.85	7183.35
Indonesia	Jakarta Comp	5410.64	5420.73
Ireland	ISEQ Overall	6249.32	6341.51
Israel	Tel Aviv 100	14.79	14.80
Italy	FTSE Italia All-Share	24625.12	25235.09
	FTSE Italia Mid Cap	32892.64	33763.92
	FTSE MIB	23044.08	23610.81
Japan	2nd Section	4788.76	4808.54
	Nikkei 225	19652.88	19885.77
	S&P Topix 150	1336.94	1342.38
	Topix	1588.69	1599.42
Jordan	Amman SE	2146.64	2125.42
Kenya	NSE 20	5093.00	5078.74
Kuwait	KSX Market Index	6295.75	6264.28
Latvia	OMX Riga	434.63	435.13
Lithuania	OMX Vilnius	494.07	495.29
Luxembourg	LuxX	1741.62	1771.50
Malaysia	FTSE Bursa KLCI	1845.86	1847.94
Mexico	IPC	45012.37	45480.23
Morocco	MASI	9912.31	9937.03
Netherlands	AEX	495.03	504.38
	AEX All Share	755.20	769.13
New Zealand	NZX 50	5861.48	5881.76
Nigeria	SE All Share	34832.62	34965.88
Norway	Oslo All Share	701.51	710.20
Pakistan	KSE 100	33234.73	32736.44
Philippines	Manila Comp	7948.89	7948.20
Poland	Wig	55459.57	56165.10
Portugal	PSI 20	6001.87	6140.86
	PSI General	2685.10	2737.37
Romania	BET Index	7552.76	7427.51
Russia	Micex Index	1656.59	1686.79
	RTX	998.96	1061.60
Saudi-Arabia	TADAWUL All Share Index	9251.19	9164.44
Singapore	FTSE Straits Times	3525.19	3531.61
Slovakia	SAX	248.99	248.99
Slovenia	SBI TOP	821.92	831.60
South Africa	FTSE/JSE All Share	53734.04	54262.27
	FTSE/JSE Res 20	40963.77	41422.22
	FTSE/JSE Top 40	47491.87	48003.52
South Korea	Kospi	2143.50	2139.90
	Kospi 200	268.28	268.45
Spain	IBEX 35	11359.40	11611.70
Sri Lanka	CSE All Share	7086.41	7077.27
Sweden	OMX Stockholm 30	1655.72	1690.93
	OMX Stockholm AS	543.89	554.60
Switzerland	SMI Index	9245.92	9398.60
Taiwan	Weighted Pr	9570.93	9656.87
Thailand	Bangkok SET	1566.85	1570.00
Turkey	BIST 100	82436.68	81357.53
UAE	Abu Dhabi General Index	4655.80	4622.30
UK	FT 30	3030.30	3060.10
	FTSE 100	6994.63	7060.45
	FTSE 4Good UK	6218.74	6283.55
	FTSE All Share	3778.37	3813.34
	FTSE techMARK 100	3821.57	3848.29
USA	DJ Composite	6311.32	6382.15
	DJ Industrial	17826.30	18105.77
	DJ Transport	8647.50	8708.36
	DJ Utilities	583.28	585.29
	Nasdaq 100	4351.80	4418.83
	Nasdaq Cmp	4931.81	5007.79
	NYSE Comp	11058.45	11169.75
	Russell 2000	1204.70	1213.05
	S&P 500	2102.06	2091.18
	Wilshire 5000	22060.79	22324.91
Venezuela	IBC	5540.36	5472.22
Vietnam	VNI	568.28	568.28
Cross-Border	DJ Global Titans ($)	241.23	243.45
	Euro Stoxx 50 (Eur)	3674.05	3751.72
	Euronext 100 ID	1001.58	1018.19
	FTSE 4Good Global ($)	5692.16	5750.93
	FTSE All World	286.22	289.05
	FTSE E300	1607.03	1635.76
	FTSE Eurotop 100	3224.40	3279.99
	FTSE Global 100 ($)	1353.52	1366.87
	FTSE Gold Min ($)	1232.90	1227.57
	FTSE Latibex Top (Eur)	3680.50	3716.60
	FTSE Multinationals ($)	1590.32	1589.54
	FTSE World ($)	502.97	507.91
	FTSEurofirst 100 (Eur)	4616.51	4695.99
	FTSEurofirst 80 (Eur)	4905.79	5012.45
	MSCI ACWI Fr ($)	438.29	436.98
	MSCI All World ($)	1786.58	1783.79
	MSCI Europe (Eur)	1552.05	1577.81
	MSCI Pacific ($)	2549.43	2561.04
	S&P Euro (Eur)	1615.77	1649.89
	S&P Europe 350 (Eur)	1649.08	1678.03
	S&P Global 1200 ($)	1963.22	1985.14
	Stoxx 50 (Eur)	3507.62	3564.92

(c) Closed. (u) Unavailable. † Correction. ▼ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA — ACTIVE STOCKS

	stock traded m's	close price	Day's change
Apple	61.4	124.75	-1.42
Netflix	40.4	571.55	9.50
Medtronic	26.6	106.71	-1.36
Comcast	24.3	58.42	-1.25
General Electric	23.8	27.25	-0.03
Facebook Class A	18.6	80.78	-1.54
Schlumberger	18.5	92.86	0.97
Albertsons Llc	18.4	35.10	-0.04
American Express	17.7	77.32	-3.59
Microsoft	16.9	41.62	-0.55

LONDON — ACTIVE STOCKS

	stock traded m's	close price	Day's change
Bp	236.2	479.35	5.90
Bg	191.0	1192.50	2.50
Hsbc Holdings	176.3	600.00	-6.80
Royal Dutch Shell	171.0	2120.50	-24.00
Glaxosmithkline	159.6	1575.50	-20.50
Astrazeneca	159.5	4750.00	-78.50
Vodafone	151.9	226.40	-1.00
British American Tobacco	145.0	3724.00	-18.00
Rio Tinto	141.9	2801.00	-41.00
Unilever	123.2	2992.00	-19.00

EURO MARKETS — ACTIVE STOCKS

	stock traded m's	close price	Day's change
Nestle N	958.0	74.50	0.60
Santander	955.0	6.56	-0.21
Telefonica	805.9	13.47	-0.12
Novartis N	671.1	96.41	0.00
Bayer Ag Na	602.6	138.95	0.00
Intesa Sanpaolo	601.9	2.98	-0.11
Unicredit	566.0	5.99	-0.22
Inditex	565.4	29.43	-0.92
Roche Gs	548.8	16.42	-0.45
Total	509.8	48.87	-0.44

TOKYO — ACTIVE STOCKS

	stock traded m's	close price	Day's change
Mitsubishi Ufj Fin	1334.7	822.00	16.70
Softbank	770.5	7664.00	-22.00
Sumitomo Mitsui Fin	714.6	4951.50	46.50
Mizuho Fin	628.0	222.60	1.90
Toyota Motor	623.6	8297.00	-12.00
Sony	478.1	3555.50	-136.50
Hitachi	332.4	794.10	-14.70
Nippon Telegraph And Telephone	280.5	8141.00	-104.00
Honda Motor Co.	274.0	4228.00	-13.50
Sharp	270.7	261.00	-16.00

BIGGEST MOVERS — AMERICA

	Close price	Day's change	Day's chng%
Ups			
Mattel	26.75	1.48	5.84
Mylan N.v. Ordinary Shares	69.82	2.98	4.46
Southwestern Energy	27.16	0.76	2.88
Csx	33.30	0.88	2.71
Seagate Technology	57.43	1.47	2.63
Downs			
Time Warner Cable	149.61	-8.59	-5.43
Vimpelcom Ltd	5.67	-0.28	-4.71
American Express	77.32	-3.59	-4.44
Pvh	103.74	-3.90	-3.62
Check Point Software Ltd	81.75	-3.01	-3.55

Based on the constituents of the S&P500 and the Nasdaq 100 index

BIGGEST MOVERS — LONDON

	Close price	Day's change	Day's chng%
Ups			
Qinetiq	202.50	7.40	3.79
Debenhams	87.60	2.70	3.18
Wh Smith	1419.00	34.00	2.45
Telecom Plus	803.50	18.50	2.36
Hunting	623.00	14.00	2.30
Downs			
Evraz	191.70	-13.70	-6.67
Kaz Minerals	227.80	-13.90	-5.75
Nmc Health	689.00	-37.00	-5.10
Allied Minds	664.50	-33.00	-4.73
Ocado	348.90	-17.10	-4.67

Based on the constituents of the FTSE 350 index

BIGGEST MOVERS — EURO MARKETS

	Close price	Day's change	Day's chng%
Ups			
Ucb	49.40	0.51	1.03
Red Ele.	78.00	0.46	0.59
Peugeot	16.45	0.02	0.12
Bureau Veritas	20.80	0.03	0.12
Talanx Ag Na O.n.	30.51	0.00	0.00
Downs			
Skf , Ab Ser. B	22.22	-2.00	-8.24
Sampo A	45.51	-3.64	-7.41
Orkla	7.28	-0.35	-4.59
Ahold Kon	18.49	-0.88	-4.52
Sandvik Ab	10.10	-0.46	-4.37

Based on the constituents of the FTSEurofirst 300 Eurozone index

BIGGEST MOVERS — TOKYO

	Close price	Day's change	Day's chng%
Ups			
Showa Denko K.k.	168.00	5.00	3.07
Itochu	1451.00	36.00	2.54
Mitsubishi Materials	423.00	10.00	2.42
Fukuoka Fin.	691.00	16.00	2.37
Jx Holdings	519.10	11.20	2.21
Downs			
Isetan Mitsukoshi Holdings	2063.00	-210.00	-9.24
Alps Electric Co.,	2898.00	-187.00	-6.06
J.front Retailing Co.,	1893.00	-118.00	-5.87
Sharp	261.00	-16.00	-5.78
Taiyo Yuden Co.,	1759.00	-107.00	-5.73

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100

	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Weir	1872.00	5.2	1.1
Fresnillo	728.50	3.6	-4.9
Royal Dutch Shell	2120.50	3.5	5.0
Randgold Resources Ltd	5045.00	3.4	15.2
Ashtead	1112.00	3.3	-3.5
Babcock Intl	1033.00	3.1	-2.4
Royal Dutch Shell	2089.00	3.1	-3.0
Glencore	298.55	3.1	-0.1
Next	7220.00	2.1	5.9
Crh	1835.00	2.1	18.8
Bg	1192.50	2.1	37.9
Dixons Carphone	441.30	2.0	-4.6
Losers			
Int Consolidated Airlines S.a.	564.50	-8.5	16.1
Pearson	1355.00	-7.9	13.9
Hikma Pharmaceuticals	2081.00	-7.3	5.2
St. James's Place	927.50	-6.7	13.9
Meggitt	540.50	-5.8	4.1
Tesco	236.70	-5.7	25.2
Standard Chartered	1050.00	-5.3	9.0
Aberdeen Asset Management	480.80	-5.3	11.2
Intu Properties	349.20	-5.0	4.6
Smith & Nephew	1136.00	-4.9	-4.4
Bae Systems	513.00	-4.9	8.7
Barratt Developments	531.00	-4.8	12.7

FTSE 250

	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Tullow Oil	398.00	20.2	-3.8
Jd Sports Fashion	562.00	13.6	10.7
Debenhams	87.60	11.4	16.4
Hunting	615.00	10.6	15.7
Premier Oil	171.80	8.5	2.8
Lonmin	140.10	7.8	-21.2
Bank Of Georgia Holdings	2040.00	6.8	-1.7
Vedanta Resources	551.50	6.5	-4.0
Enterprise Inns	116.20	6.1	1.4
Just Retirement	176.80	5.2	19.5
Wood (john)	710.50	5.1	19.1
Cairn Energy	178.60	5.1	0.1
Losers			
Petra Diamonds	160.10	-14.8	-17.5
Spire Healthcare	320.00	-14.0	-15.8
Telecom Plus	803.50	-12.6	-36.3
Vesuvius	449.40	-10.8	0.7
Al Noor Hospitals	900.00	-9.4	-9.1
Amlin	472.40	-9.2	-1.2
Zoopla Property	188.20	-8.4	-4.2
Allied Minds	664.50	-8.3	81.1
Evraz	191.70	-7.4	24.1
Ocado	348.90	-7.0	-12.8
Tullett Prebon	361.60	-5.9	27.4
Melrose Industries	271.20	-5.7	-5.6

FTSE SmallCap

	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Carr's	160.00	15.5	-
Enquest	47.25	15.2	33.1
Lamprell	131.00	14.4	8.3
E2v	216.25	9.1	24.8
Carclo	146.75	7.1	64.0
Game Digital	249.50	5.7	-30.7
Centaur Media	75.50	5.6	16.2
Ricardo	802.00	5.5	27.5
Mothercare	218.50	5.0	24.9
Brammer	400.00	5.0	17.1
Lavendon	174.75	5.0	1.3
Shires	354.00	4.4	20.0
Losers			
Dialight	741.00	-8.3	-8.5
Foxtons	204.75	-7.8	27.8
Safestore Holdings	279.00	-7.0	20.3
Lamprell	110.25	-6.2	-26.5
Xchanging	125.25	-5.8	-19.5
Onesavings Bank	279.00	-5.7	30.1
Jpmorgan Chinese Investment Trust	210.50	-5.5	18.3
Petropavlovsk	5.49	-5.3	-62.8
Fenner	211.25	-5.3	-2.3
New India Investment Trust	341.00	-5.0	6.5
Partnership Assurance	135.00	-4.9	-3.2
Spirent Communications	91.00	-4.7	20.1

Industry Sectors

	Apr 17 price(p)	%Chg week	%Chg ytd
Winners			
Oil & Gas Producers	7636.90	2.7	7.0
Oil Equipment & Services	19856.82	2.4	20.8
Construction & Materials	4849.09	1.7	17.4
Personal Goods	27889.42	1.4	13.2
Automobiles & Parts	8447.43	0.1	5.1
Electricity	9329.03	0.0	4.9
General Retailers	3149.57	0.0	5.8
Tobacco	44151.53	-0.3	8.7
Industrial Transportation	2860.67	-0.8	1.2
Support Services	6962.28	-0.9	8.1
Fixed Line Telecommunication	5111.90	-1.2	11.8
Losers			
Industrial Metals	1888.00	-7.5	24.0
Health Care Equip & Services	6704.99	-5.0	6.5
Food & Drug Retailers	3289.27	-4.5	16.1
Forestry & Paper	14627.50	-4.0	29.4
Travel & Leisure	8737.40	-3.9	8.5
Media	7477.30	-3.7	14.5
Life Insurance	8458.75	-3.4	12.0
General Financial	9751.46	-3.3	14.4
Technology Hardware & Equip.	1324.90	-3.1	11.3
Household Goods	14515.28	-3.0	13.4
Real Estate Investment Trusts	3370.29	-2.9	10.3
Pharmaceuticals & Biotech.	14159.75	-2.8	11.3

Based on last week's performance. †Price at suspension.

CURRENCIES

Apr 17	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	8.8645	-0.0023	9.5510	0.0640	13.2595	0.0483
Australia	Australian Dollar	1.2872	0.0003	1.3869	0.0099	1.9253	0.0079
Bahrain	Bahrainin Dinar	0.3770	-	0.4061	0.0028	0.5638	0.0022
Bolivia	Bolivian Boliviano	6.9100	-	7.4452	0.0518	10.3360	0.0403
Brazil	Brazilian Real	3.0569	0.0239	3.2936	0.0485	4.5724	0.0535
Canada	Canadian Dollar	1.2218	-0.0017	1.3164	0.0074	1.8275	0.0047
Chile	Chilean Peso	613.2000	0.0350	660.6905	4.6323	917.2227	3.6327
China	Chinese Yuan	6.1978	0.0011	6.6778	0.0476	9.2706	0.0378
Colombia	Colombian Peso	2498.1500	-2.4250	2691.6241	16.1247	3736.7253	10.9734
Costa Rica	Costa Rican Colon	530.4000	-0.3500	571.4778	3.6000	793.3707	2.5756
Czech Republic	Czech Koruna	25.4838	-0.1445	27.4574	0.0363	38.1186	-0.0665
Denmark	Danish Krone	6.9245	-0.0513	7.4608	-0.0031	10.3576	-0.0361
Egypt	Egyptian Pound	7.6070	-0.0006	8.1961	0.0564	11.3785	0.0435
Hong Kong	Hong Kong Dollar	7.7519	0.0004	8.3522	0.0585	11.5952	0.0459
Hungary	Hungarian Forint	279.1313	-2.7931	300.7492	-0.8969	417.5237	-2.5317
India	Indian Rupee	62.3450	0.0512	67.1734	0.5220	93.2555	0.4404
Indonesia	Indonesian Rupiah	12850.0000	-6.0000	13845.1996	89.8711	19221.0109	66.0878
Israel	Israeli Shekel	3.9264	-0.0185	4.2305	0.0096	5.8731	-0.0046
Japan	Japanese Yen	119.0650	-0.2700	128.2862	0.6033	178.0970	0.2929
..One Month		119.0650	-0.2701	128.2862	0.6033	178.0970	0.2928
..Three Month		119.0649	-0.2703	128.2862	0.6033	178.0967	0.2923
..One Year		119.0641	-0.2719	128.2862	0.6032	178.0970	0.2912
Kenya	Kenyan Shilling	93.5000	0.0500	100.7413	0.7541	139.8570	0.6205
Kuwait	Kuwaiti Dinar	0.3016	-0.0006	0.3250	0.0016	0.4511	0.0009
Malaysia	Malaysian Ringgit	3.6255	-0.0300	3.9063	-0.0049	5.4230	-0.0235
Mexico	Mexican Peson	15.3029	0.0449	16.4881	0.1627	22.8900	0.1563
New Zealand	New Zealand Dollar	1.3034	-0.0065	1.4043	0.0028	1.9496	-0.0020
Nigeria	Nigerian Naira	199.0000	-	214.4119	1.4912	297.6636	1.1620
Norway	Norwegian Krone	7.8198	0.0254	8.4254	0.0858	11.6968	0.0835
Pakistan	Pakistani Rupee	101.5250	0.0250	109.3878	0.7875	151.8608	0.6301
Peru	Peruvian Nuevo Sol	3.1265	-0.0001	3.3686	0.0233	4.6766	0.0181
Philippines	Philippine Peso	44.2800	-0.1500	47.7093	0.1713	66.2339	0.0351
Poland	Polish Zloty	3.7284	-0.0313	4.0171	-0.0056	5.5769	-0.0249
Romania	Romanian Leu	4.1066	-0.0144	4.4246	0.0154	6.1426	0.0025
Russia	Russian Ruble	52.5198	2.5466	56.5872	3.1183	78.5589	4.1010
Saudi Arabia	Saudi Riyal	3.7504	0.0000	4.0408	0.0280	5.6098	0.0218
Singapore	Singapore Dollar	1.3463	-0.0081	1.4505	0.0015	2.0137	-0.0041
South Africa	South African Rand	12.0715	0.0362	13.0064	0.1292	18.0565	0.1245
South Korea	South Korean Won	1083.7500	-5.0500	1167.6832	2.7176	1621.0700	-1.1960
Sweden	Swedish Krona	8.6458	0.0178	9.3154	0.0838	12.9324	0.0770
Switzerland	Swiss Franc	0.9535	-0.0076	1.0273	-0.0010	1.4262	-0.0058
Taiwan	New Taiwan Dollar	31.0905	-0.0880	33.4984	0.1388	46.5051	0.0504
Thailand	Thai Baht	32.3950	-0.0250	34.9039	0.2160	48.4563	0.1519
Tunisia	Tunisian Dinar	1.9549	-0.0160	2.1063	-0.0025	2.9241	-0.0124
Turkey	Turkish Lira	2.6942	-0.0110	2.9028	0.0084	4.0299	-0.0007
United Arab Emirates	UAE Dirham	3.6730	0.0000	3.9575	0.0275	5.4941	0.0214
United Kingdom	Pound Sterling	0.6685	-0.0026	0.7203	0.0022	-	-
..One Month		0.6685	-0.0026	0.7203	0.0022	-	-
..Three Month		0.6684	-0.0026	0.7202	0.0022	-	-
..One Year		0.6683	-0.0026	0.7197	0.0022	-	-
United States	United States Dollar	-	-	1.0774	0.0075	1.4958	0.0058
..One Month		-	-	1.0774	-0.4125	1.4958	0.0058
..Three Month		-	-	1.0773	-0.4125	1.4957	0.0058
..One Year		-	-	1.0766	-0.4125	1.4956	0.0058
Venezuela	Venezuelan Bolivar Fuerte	6.2900	-0.0025	6.7771	0.0445	9.4086	0.0330
Vietnam	Vietnamese Dong	21590.0000	-13.5000	23262.0893	147.3291	32294.3175	105.9253
European Union	Euro	0.9281	-0.0065	-	-	1.3883	-0.0043
..One Month		0.9281	-0.0065	-	-	1.3882	-0.0043
..Three Month		0.9280	-0.0065	-	-	1.3881	-0.0043
..One Year		0.9273	-0.0065	-	-	1.3876	-0.0043

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg Apr 17	Day's chge%	Euro Index	£ Strlg Apr 16	£ Strlg Apr 15	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	6994.63	-0.93	7557.71	7060.45	7096.78	6625.25	3.44	1.84	15.84	83.92	5344.95
FTSE 250 (250)	17572.43	-0.89	18987.04	17730.27	17873.53	15907.91	2.46	2.00	20.32	102.91	11992.15
FTSE 250 ex Inv Co (212)	19048.47	-0.88	20581.90	19216.69	19380.82	17336.95	2.49	2.10	19.08	107.78	13250.04
FTSE 350 (350)	3845.53	-0.93	4155.10	3881.45	3903.28	3616.10	3.28	1.86	16.43	42.31	5928.32
FTSE 350 ex Investment Trusts (312)	3824.24	-0.92	4132.10	3859.91	3881.67	3601.40	3.30	1.87	16.24	42.38	3035.09
FTSE 350 Higher Yield (95)	3689.03	-0.90	3986.00	3722.63	3741.71	3628.91	4.61	1.62	13.37	59.66	5779.60
FTSE 350 Lower Yield (255)	3626.86	-0.95	3918.82	3661.59	3684.03	3248.62	1.93	2.43	21.41	20.68	3782.66
FTSE SmallCap (290)	4660.06	-0.67	5035.20	4691.46	4702.27	4451.95	2.47	1.92	21.14	32.59	6257.43
FTSE SmallCap ex Inv Co (151)	4086.74	-0.41	4415.73	4103.66	4110.31	4072.17	2.35	2.94	14.46	25.66	5760.78
FTSE All-Share (640)	3778.37	-0.92	4082.54	3813.34	3834.36	3554.50	3.25	1.86	16.55	41.06	5893.04
FTSE All-Share ex Inv Co (463)	3743.78	-0.91	4045.16	3778.34	3799.37	3528.85	3.28	1.88	16.20	41.16	3020.61
FTSE All-Share ex Multinationals (576)	1223.92	-0.92	1096.07	1235.28	1243.20	1127.45	2.72	2.03	18.15	7.87	2042.20
FTSE Fledgling (96)	7594.27	0.13	8205.62	7584.52	7587.83	6822.45	2.30	-2.99	-14.56	36.87	13441.16
FTSE Fledgling ex Inv Co (54)	9827.10	0.32	10618.20	9795.54	9797.90	8465.46	2.30	-7.24	-6.01	22.84	16882.71
FTSE All-Small (386)	3227.29	-0.63	3487.09	3247.89	3255.10	3073.19	2.46	1.71	23.72	22.24	5564.94
FTSE All-Small ex Inv Co Index (205)	3042.42	-0.38	3287.34	3054.11	3058.89	3007.68	2.35	2.54	16.76	18.57	5434.11
FTSE AIM All-Share Index (840)	749.68	0.06	810.03	749.22	746.48	829.20	1.27	1.42	55.33	2.38	799.05
FTSE Sector Indices											
Oil & Gas (19)	**8111.11**	**-0.12**	**8764.07**	**8120.46**	**8074.46**	**8734.63**	**4.36**	**2.32**	**9.90**	**89.72**	**6529.93**
Oil & Gas Producers (12)	7684.37	-0.10	8302.97	7691.83	7643.56	8231.67	4.38	2.34	9.74	84.77	6394.76
Oil Equipment Services & Distribution (7)	20353.43	-0.58	21991.91	20471.28	20672.81	25080.63	3.70	1.59	16.95	239.02	14525.25
Basic Materials (30)	**4687.17**	**-1.47**	**5064.49**	**4756.98**	**4788.81**	**5468.58**	**4.10**	**2.52**	**9.66**	**76.51**	**4456.48**
Chemicals (7)	12833.77	-0.26	13866.91	12866.98	13012.69	11718.82	2.01	2.51	19.78	22.65	10841.23
Forestry & Paper (1)	15961.29	-1.81	17246.20	16255.13	16302.15	11800.54	2.38	3.25	12.92	0.00	16220.63
Industrial Metals & Mining (2)	1950.43	-6.34	2107.44	2082.46	2095.24	1267.25	0.51	-21.16	-9.20	0.00	1688.10
Mining (20)	13263.98	-1.56	14331.76	13474.17	13558.68	16185.51	4.47	2.53	8.85	251.47	6583.58
Industrials (114)	**4672.43**	**-0.73**	**5048.56**	**4706.74**	**4745.00**	**4495.05**	**2.36**	**1.36**	**31.18**	**35.26**	**4561.66**
Construction & Materials (13)	5009.70	-1.12	5412.99	5066.55	5061.97	4838.97	2.85	-0.38	-93.12	71.26	5070.31
Aerospace & Defense (9)	5319.82	-0.39	5748.08	5340.82	5436.93	4894.31	2.06	1.36	35.65	57.16	5433.46
General Industrials (6)	3574.00	-1.05	3861.72	3611.96	3644.93	3418.21	3.23	1.79	17.32	28.63	3794.02
Electronic & Electrical Equipment (12)	5541.73	-0.13	5987.85	5548.73	5573.71	5410.92	2.06	2.11	23.01	17.69	4813.64
Industrial Engineering (14)	9713.80	-1.82	10495.78	9893.96	9982.13	10979.57	2.51	2.04	19.48	99.70	11188.06
Industrial Transportation (8)	4232.12	-0.55	4572.82	4255.44	4265.75	4542.70	3.67	1.47	18.53	29.35	3448.51
Support Services (52)	6841.58	-0.64	7392.34	6885.38	6926.29	6453.10	2.19	1.51	30.33	32.17	6734.09
Consumer Goods (40)	**17514.11**	**-0.82**	**18924.02**	**17658.97**	**17674.02**	**15365.39**	**2.89**	**1.73**	**19.98**	**233.74**	**12134.99**
Automobiles & Parts (1)	8490.72	-2.51	9174.23	8709.27	8556.52	9188.68	2.32	1.72	24.94	131.60	7733.57
Beverages (6)	14808.72	-0.80	16000.84	14928.78	15149.03	13787.24	2.37	1.73	24.41	92.30	9880.71
Food Producers (10)	8036.89	-1.19	8683.88	8133.80	8130.69	7639.99	1.99	1.78	28.24	8.62	6602.05
Household Goods & Home Construction (13)	12112.14	-0.75	13087.18	12203.87	12361.64	9491.15	2.29	2.38	18.30	118.36	8134.18
Leisure Goods (2)	5116.35	1.00	5528.23	5065.89	5099.18	5094.49	4.14	1.05	22.96	109.73	4233.00
Personal Goods (6)	24282.10	-0.68	26236.85	24447.77	24009.96	20414.52	2.73	2.70	13.55	141.74	15327.03
Tobacco (2)	44151.60	-0.79	47705.88	44502.01	44101.48	38514.51	3.97	1.19	21.23	1201.25	26424.95
Health Care (21)	**10248.47**	**-1.30**	**11073.49**	**10383.06**	**10484.11**	**8421.06**	**3.35**	**0.96**	**31.19**	**154.41**	**7319.86**
Health Care Equipment & Services (9)	6839.70	-1.23	7390.30	6924.80	7023.93	5018.09	1.45	2.31	29.81	55.16	5757.92
Pharmaceuticals & Biotechnology (12)	14027.75	-1.30	15157.00	14212.79	14345.58	11624.88	3.51	0.91	31.32	219.75	8888.79
Consumer Services (96)	**5052.81**	**-0.95**	**5459.57**	**5101.21**	**5159.08**	**4435.34**	**2.43**	**1.90**	**21.65**	**23.80**	**4477.20**
Food & Drug Retailers (7)	3429.55	-1.83	3705.63	3493.51	3567.20	3879.91	4.70	1.09	19.54	1.72	3858.79
General Retailers (31)	3064.44	-0.51	3311.13	3080.28	3091.25	2803.70	2.04	2.53	19.38	3.92	3283.72
Media (23)	7575.99	-0.94	8185.87	7647.84	7747.04	6114.48	2.56	1.82	21.48	42.99	4374.10
Travel & Leisure (35)	8519.53	-0.90	9205.37	8597.05	8692.45	7054.36	1.76	2.32	24.49	63.02	7662.77
Telecommunications (8)	**3954.40**	**-0.47**	**4272.74**	**3973.23**	**3992.22**	**3552.30**	**3.93**	**2.51**	**10.14**	**0.00**	**3980.86**
Fixed Line Telecommunications (6)	5183.99	-0.41	5601.31	5205.49	5252.60	4354.70	2.66	1.84	20.39	0.00	4367.90
Mobile Telecommunications (2)	5148.27	-0.51	5562.71	5174.87	5184.95	4813.24	4.77	2.76	7.60	0.00	4592.78
Utilities (8)	**8527.49**	**-0.56**	**9213.97**	**8575.64**	**8599.31**	**8555.55**	**5.02**	**0.96**	**20.70**	**32.81**	**8690.40**
Electricity (3)	9302.97	-0.17	10051.88	9318.52	9323.71	9782.07	5.40	0.94	19.62	142.09	11884.86
Gas Water & Multiutilities (5)	7876.75	-0.67	8510.84	7929.99	7956.75	7796.43	4.91	0.97	21.02	5.10	8052.25
Financials (283)	**4945.46**	**-1.28**	**5343.57**	**5009.64**	**5051.85**	**4521.79**	**3.13**	**1.88**	**17.05**	**69.39**	**4234.61**
Banks (8)	4373.31	-1.35	4725.36	4433.08	4482.01	4449.34	3.74	1.36	19.66	81.13	2951.16
Nonlife Insurance (12)	2417.96	-1.26	2612.61	2448.81	2475.72	2106.96	3.01	1.47	22.58	40.43	4009.55
Life Insurance/Assurance (11)	8573.02	-1.54	9263.16	8706.68	8766.47	7071.05	3.05	1.82	18.07	136.73	7719.07
Index- Real Estate Investment & Services (24)	2987.68	-0.12	3228.19	2991.23	3011.98	2775.47	1.68	5.48	10.88	16.85	7571.14
Real Estate Investment Trusts (22)	3038.51	-0.74	3283.11	3061.03	3101.19	2456.32	2.64	6.27	6.04	34.09	3527.19
General Financial (29)	8331.13	-1.69	9001.80	8474.31	8495.80	6732.07	2.65	2.00	18.92	41.42	8846.35
Equity Investment Instruments (177)	7990.45	-0.97	8633.69	8069.00	8102.06	7118.06	2.41	1.06	39.15	59.63	4125.40
Non Financials (357)	**4390.78**	**-0.79**	**4744.24**	**4425.81**	**4445.77**	**4170.60**	**3.29**	**1.85**	**16.39**	**42.97**	**5994.14**
Technology (21)	**1344.05**	**-0.96**	**1452.24**	**1357.10**	**1371.72**	**1175.55**	**1.28**	**2.29**	**34.14**	**5.53**	**1663.36**
Software & Computer Services (13)	1452.73	-1.30	1569.68	1471.85	1479.94	1266.57	2.05	1.93	25.17	14.02	1880.54
Technology Hardware & Equipment (8)	1682.79	-0.75	1818.26	1695.43	1719.45	1473.64	0.78	2.90	44.23	0.72	1915.59

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7064.42	7074.69	7077.25	7062.39	6994.37	7000.28	6989.06	6981.74	6989.19	7092.87	6979.44
FTSE 250	17738.77	17775.94	17765.86	17721.03	17567.49	17571.99	17585.83	17582.82	17569.53	17781.20	17561.13
FTSE SmallCap	4693.58	4692.79	4694.70	4692.18	4677.72	4673.45	4671.98	4668.46	4668.14	4695.42	4660.06
FTSE All-Share	3815.42	3821.15	3821.97	3813.89	3778.57	3781.19	3776.72	3773.25	3776.12	3828.63	3772.43

Time of FTSE 100 Day's high:09:15:30 Day's Low13:03:30 FTSE 100 2010/11 High: 7096.78(15/04/2015) Low: 6366.51(06/01/2015)
Time of FTSE All-Share Day's high:09:18:00 Day's Low13:03:00 FTSE 100 2010/11 High: 3834.36(15/04/2015) Low: 3434.73(06/01/2015)

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FT 30 INDEX

	Apr 17	Apr 16	Apr 15	Apr 14	Apr 13	Yr Ago	High	Low
FT 30	3030.30	3060.10	3082.80	3079.70	3087.60	0.00	3110.40	2669.30
FT 30 Div Yield	1.68	1.66	1.65	1.65	1.65	0.00	3.93	2.74
P/E Ratio net	26.61	26.86	27.04	27.04	27.06	0.00	19.44	14.26

FT 30 since compilation: 4198.4 high: 19/07/1999; low49.4 26/06/1940Base Date: 1/7/35

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
3060.1	3067	3067.1	3059.9	3025.4	3030.8	3029.5	3027.9	3029.7	3071.8	3024.9

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FX: EFFECTIVE INDICES

	Apr 16	Apr 15	Mnth Ago		Apr 17	Apr 16	Mnth Ago
Australia	97.24	95.71	96.82	Sweden	78.42	77.62	79.35
Canada	96.20	94.94	92.18	Switzerland	166.63	165.82	161.69
Denmark	104.37	104.42	104.34	UK	90.14	89.92	90.79
Japan	129.01	129.63	128.20	USA	102.81	103.62	105.26
New Zealand	127.82	127.04	124.30	Euro	83.78	83.62	83.54
Norway	95.07	94.51	91.57				

Source: Bank of England. New Sterling ERI base Jan 2005 = 100. Other indices base average 1990 = 100. Index rebased 1/2/95. for further information about ERIs see www.bankofengland.co.uk

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Forestry & Paper	29.33	FTSE 250 Index	9.24	Software & Comp Serv	6.35
Industrial Metals &	25.24	Technology	8.91	Equity Invest Instr	6.30
Oil Equipment & Serv	19.84	Nonlife Insurance	8.78	General Retailers	6.17
Construct & Material	16.65	Tobacco	8.62	Telecommunications	6.02
Food & Drug Retailer	15.98	Industrials	8.58	Industrial Eng	5.24
Financial Services	14.31	Electronic & Elec Eq	8.36	Automobiles & Parts	5.03
Media	14.21	Consumer Goods	8.27	Beverages	4.35
Household Goods & Ho	13.41	Travel & Leisure	8.16	Mobile Telecomms	2.64
Personal Goods	13.21	Support Services	7.99	Leisure Goods	2.00
Life Insurance	11.97	Aerospace & Defense	7.73	Industrial Transport	1.95
Real Est Invest & Se	11.93	Oil & Gas	7.48	Banks	1.24
Fixed Line Telecomms	11.74	NON FINANCIALS Index	7.10	Health Care Eq & Srv	0.39
Pharmace & Biotech	11.27	Oil & Gas Producers	7.05	Basic Materials	-1.03
Tech Hardware & Eq	10.67	FTSE All{HY-}Share Index	6.95	Food Producers	-2.10
Consumer Services	10.54	FTSE SmallCap Index	6.74	Gas Water & Multi	-2.82
Real Est Invest & Tr	10.44	Financials	6.53	Mining	-2.97
Health Care	10.33	FTSE 100 Index	6.53	Utilities	-3.27
		Chemicals	6.37	Electricity	-4.84

FTSE GLOBAL EQUITY INDEX SERIES

Apr 17 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	7616	490.24	-1.0	2.7	4.3	659.20	5.0	2.2
FTSE Global All Cap	6979	504.54	-0.9	2.8	4.2	666.98	4.9	2.2
FTSE Global Large Cap	1360	432.52	-1.0	2.6	3.7	594.24	4.5	2.4
FTSE Global Mid Cap	1669	654.56	-1.0	3.2	6.0	842.74	6.6	1.9
FTSE Global Small Cap	4587	690.35	-1.0	2.9	5.8	863.22	6.3	1.8
FTSE All-World	3029	286.22	-1.0	2.7	4.1	405.87	4.9	2.3
FTSE World	2532	502.97	-1.0	2.2	3.5	957.94	4.3	2.3
FTSE Global All Cap ex UNITED KINGDOM In	7282	502.74	-1.0	2.7	4.5	667.00	5.1	2.2
FTSE Global All Cap ex USA	5648	478.61	-0.8	5.2	7.0	680.59	7.9	2.6
FTSE Global All Cap ex JAPAN	6360	501.05	-1.0	2.7	3.6	679.26	4.3	2.3
FTSE Developed	2089	454.38	-1.0	2.0	3.7	615.71	4.4	2.3
FTSE Developed All Cap	5662	477.68	-1.0	2.1	3.9	640.58	4.6	2.2
FTSE Developed Large Cap	882	419.76	-0.9	1.8	3.2	576.11	4.0	2.4
FTSE Developed Europe Large Cap	205	368.86	-1.1	3.1	4.3	568.21	5.4	3.1
FTSE Developed Europe Mid Cap	308	535.09	-1.1	4.0	7.0	752.67	7.6	2.3
FTSE Dev Europe Small Cap	723	732.18	-1.0	3.9	6.3	1003.69	6.9	2.1
FTSE North America Large Cap	314	448.68	-1.1	0.6	0.9	581.38	1.5	2.1
FTSE North America Mid Cap	400	701.91	-1.0	1.6	3.5	856.04	3.9	1.6
FTSE North America Small Cap	1488	720.00	-1.2	1.5	4.5	854.29	5.0	1.5
FTSE North America	714	302.83	-1.1	0.8	1.3	402.39	1.9	2.0
FTSE Developed ex North America	1375	250.14	-0.8	3.7	7.2	381.85	8.2	2.6
FTSE Japan Large Cap	174	346.13	-0.3	3.0	13.5	427.98	14.4	1.6
FTSE Japan Mid Cap	304	490.23	-1.2	2.7	15.3	587.16	16.2	1.4
FTSE Global wi JAPAN Small Cap	778	515.82	-0.6	2.9	10.0	637.24	11.0	1.6
FTSE Japan	478	142.33	-0.4	2.9	13.8	197.86	14.8	1.6
FTSE Asia Pacific Large Cap ex Japan	493	674.54	-0.5	8.0	9.6	982.94	10.2	2.7
FTSE Asia Pacific Mid Cap ex Japan	445	908.93	-0.4	9.8	12.8	1282.53	13.3	2.3
FTSE Asia Pacific Small Cap ex Japan	1374	594.97	-0.2	8.7	11.3	827.93	11.8	2.4
FTSE Asia Pacific Ex Japan	938	533.74	-0.5	8.2	10.0	827.09	10.5	2.7
FTSE Emerging All Cap	1954	749.40	-1.1	9.8	8.7	1043.02	9.2	2.7
FTSE Emerging Large Cap	478	714.02	-1.2	10.3	9.2	999.61	9.7	2.7
FTSE Emerging Mid Cap	462	918.94	-1.0	9.0	6.7	1274.95	7.1	2.5
FTSE Emerging Small Cap	1014	761.41	-0.4	6.8	7.6	1021.40	8.0	2.5
FTSE Emerging Europe	99	347.63	-3.9	13.6	11.5	491.89	12.0	4.1
FTSE Latin America All Cap	242	857.90	-1.6	10.1	-4.8	1241.65	-4.0	3.4
FTSE Middle East and Africa All Cap	214	822.52	-1.1	8.3	6.9	1205.85	8.1	2.6
FTSE Global wi UNITED KINGDOM All Cap In	334	368.56	-0.5	3.8	2.6	568.44	3.8	3.3
FTSE Global wi USA All Cap	1968	518.47	-1.2	0.4	1.9	654.93	2.4	1.9
FTSE Europe All Cap	1390	418.75	-1.2	3.6	5.1	626.05	6.1	2.9
FTSE Eurobloc All Cap	637	388.46	-1.4	2.1	5.4	586.48	6.0	2.6
FTSE RAFI All World 3000	3030	6126.55	-1.0	3.6	4.0	7555.13	4.8	2.8
FTSE RAFI US 1000	1004	9350.58	-1.1	0.9	0.6	11615.41	1.3	2.3
FTSE EDHEC-Risk Efficient All-World	3029	336.68	-0.9	2.9	5.3	445.42	6.0	2.1
FTSE EDHEC-Risk Efficient Developed Europe	513	292.41	-1.1	3.4	5.0	418.96	5.7	2.4

Apr 17 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil & Gas	166	415.03	-0.6	-0.6	4.2	616.50	5.0	3.3
Oil & Gas Producers	117	376.28	-0.7	-0.7	3.8	568.28	4.6	3.4
Oil Equipment & Services	39	435.38	-0.2	-0.2	5.0	591.51	5.8	3.2
Basic Materials	272	448.75	-1.0	-1.0	3.0	644.09	3.9	2.7
Chemicals	124	664.86	-1.1	-1.1	6.6	958.73	7.1	2.2
Forestry & Paper	17	233.31	-0.8	-0.8	12.0	367.22	13.1	2.6
Industrial Metals & Mining	71	406.46	-0.7	-0.7	-1.4	585.02	-0.8	2.4
Mining	60	549.15	-0.9	-0.9	-3.6	783.61	-1.9	4.2
Industrials	532	327.67	-1.0	-1.0	4.1	448.49	4.8	2.0
Construction & Materials	110	470.58	-0.7	-0.7	9.1	674.15	9.7	1.9
Aerospace & Defense	29	519.07	-1.4	-1.4	4.4	704.56	5.0	2.0
General Industrials	57	223.65	-0.9	-0.9	2.8	328.48	3.9	2.6
Electronic & Electrical Equipment	68	347.67	-1.7	-1.7	6.9	438.99	7.3	1.5
Industrial Engineering	104	650.85	-1.5	-1.5	5.2	875.96	6.0	2.0
Industrial Transportation	94	586.56	-0.2	-0.2	-1.8	799.37	-1.4	2.1
Support Services	70	286.12	-0.8	-0.8	5.0	377.58	5.7	1.9
Consumer Goods	407	430.23	-0.7	-0.7	6.3	601.02	6.9	2.2
Automobiles & Parts	99	422.90	-0.4	-0.4	8.5	568.28	9.3	2.0
Beverages	48	555.00	-0.7	-0.7	3.2	784.37	3.7	2.4
Food Producers	102	579.07	-0.7	-0.7	4.9	832.57	5.4	2.1
Household Goods & Home Construction	43	399.04	-1.0	-1.0	0.7	554.85	1.4	2.3
Leisure Goods	26	147.31	-1.2	-1.2	16.9	187.47	17.5	1.2
Personal Goods	76	625.44	-0.8	-0.8	7.2	834.48	7.7	1.8
Tobacco	13	1144.87	-0.1	-0.1	6.7	2176.28	8.3	4.0
Health Care	159	473.07	-0.9	-0.9	8.9	651.88	9.7	1.7
Health Care Equipment & Services	56	642.40	-1.0	-1.0	8.8	731.11	9.1	1.0
Pharmaceuticals & Biotechnology	103	363.89	-0.8	-0.8	9.0	520.48	10.0	1.9
Consumer Services	383	393.53	-1.4	-1.4	5.2	504.97	5.6	1.6
Food & Drug Retailers	54	321.58	-1.3	-1.3	6.9	429.16	7.4	1.9
General Retailers	121	506.02	-1.7	-1.7	5.8	634.22	6.3	1.5
Media	88	311.14	-1.7	-1.7	3.5	399.39	3.8	1.5
Travel & Leisure	120	378.60	-0.7	-0.7	5.1	491.08	5.8	1.7
Telecommunication	94	173.48	-0.6	-0.6	3.9	296.75	5.1	3.9
Fixed Line Telecommuniations	44	139.87	-0.8	-0.8	2.1	261.34	3.8	4.4
Mobile Telecommunications	50	191.98	-0.3	-0.3	6.1	298.26	6.9	3.2
Utilities	163	257.75	-0.4	-0.4	-3.6	458.04	-2.9	3.7
Electricity	113	273.36	-0.4	-0.4	-3.6	481.84	-2.9	3.6
Gas Water & Multiutilities	50	287.31	-0.3	-0.3	-3.4	521.40	-2.9	3.8
Financials	671	221.54	-1.1	-1.1	2.7	337.30	3.6	2.6
Banks	241	204.20	-1.1	-1.1	1.5	330.62	2.6	3.0
Nonlife Insurance	70	217.47	-1.4	-1.4	1.5	297.80	2.2	2.1
Life Insurance	49	224.79	-0.6	-0.6	6.5	334.61	7.3	2.3
Financial Services	138	239.27	-1.4	-1.4	3.3	314.10	3.8	1.7
Technology	182	175.42	-1.4	-1.4	1.9	206.54	2.3	1.6
Software & Computer Services	80	276.45	-1.6	-1.6	1.8	314.62	2.1	1.1
Technology Hardware & Equipment	102	142.80	-1.1	-1.1	2.0	172.18	2.5	1.9

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see www.ftse.com/geis. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

FTSE 100 SUMMARY

FTSE 100	Closing Price	Week's Change	FTSE 100	Closing Price	Week's Change
3i Group PLC	495.10	-14.40	Kingfisher PLC	354.50	-9.50
Aberdeen Asset Management PLC	480.80	-26.70	Land Securities Group PLC	1267	-32.00
Admiral Group PLC	1591	-12.00	Legal & General Group PLC	278.10	-9.10
Aggreko PLC	1600	29.00	Lloyds Banking Group PLC	78.75	-0.55
Anglo American PLC	1010.5	-11.50	London Stock Exchange Group PLC	2491	-94.00
Antofagasta PLC	732.00	-8.50	Marks and Spencer Group PLC	564.00	-11.50
ARM Holdings PLC	1127	-43.00	Meggitt PLC	540.50	-33.00
Ashtead Group PLC	1112	36.00	Merlin Entertainments PLC	447.20	-7.90
Associated British Foods PLC	2906	-111.00	Mondi PLC	1358	-58.00
AstraZeneca PLC	4750	-3.00	Morrison (Wm) Supermarkets PLC	197.70	-4.50
Aviva PLC	543.00	-12.00	National Grid PLC	887.60	-19.90
Babcock International Group PLC	1033	31.00	Next PLC	7220	150.00
BAE Systems PLC	513.00	-26.50	Old Mutual PLC	236.40	-0.40
Barclays PLC	255.30	-1.75	Pearson PLC	1355	-116.00
Barratt Developments PLC	531.00	-27.00	Persimmon PLC	1733	-24.00
BG Group PLC	1192.5	24.50	Prudential PLC	1636.5	-79.50
BHP Billiton PLC	1446	-17.50	Randgold Resources Ltd	5045	165.00
BP PLC	479.35	7.10	Reckitt Benckiser Group PLC	5940	-176.00
British American Tobacco PLC	3724	8.00	Reed Elsevier PLC	1130	-49.00
British Land Company PLC	847.00	-23.00	Rio Tinto PLC	2801	-36.00
British Sky Broadcasting Group PLC	1052	-2.00	Rolls-Royce Holdings PLC	978.50	3.50
BT Group PLC	450.00	-4.65	Royal Bank Of Scotland Group PLC	349.20	0.30
Bunzl PLC	1846	-66.00	Royal Dutch Shell PLC (A)	2089	62.50
Burberry Group PLC	1794	-12.00	Royal Dutch Shell PLC (B)	2120.5	72.50
Capita PLC	1121	-20.00	Royal Mail PLC	445.60	-4.40
Carnival PLC	3217	-153.00	RSA Insurance Group PLC	425.60	-10.00
Centrica PLC	260.10	-2.60	SABMiller PLC	3623.5	-46.50
Coca-Cola HBC AG	1358	-2.00	Sage Group PLC	469.30	-14.70
Compass Group PLC	1162	-57.00	Sainsbury (J) PLC	275.20	-2.20
CRH PLC	1835	38.00	Schroders PLC	3259	-146.00
Diageo PLC	1876.5	-62.00	Severn Trent PLC	2134	-40.00
Direct Line Insurance Group PLC	324.50	-5.70	Shire PLC	5430	-250.00
Dixons Carphone PLC	441.30	8.60	Smith & Nephew PLC	1136	-59.00
easyJet PLC	1823	-92.00	Smiths Group PLC	1115	-19.00
Experian PLC	1181	-12.00	Sports Direct International PLC	657.00	9.50
Fresnillo PLC	728.50	25.00	SSE PLC	1559	-2.00
G4S PLC	298.20	-10.60	St. James's Place PLC	927.50	-67.00
GKN PLC	361.30	0.10	Standard Chartered PLC	1050	-59.00
GlaxoSmithKline PLC	1575.5	-66.50	Standard Life PLC	461.40	-16.30
Glencore PLC	298.55	8.90	Taylor Wimpey PLC	160.50	-5.60
Hammerson PLC	673.00	-20.50	Tesco PLC	236.70	-14.30
Hargreaves Lansdown PLC	1209	-20.00	Travis Perkins PLC	1976	-33.00
Hikma Pharmaceuticals PLC	2081	-164.00	Tui AG	1196	-52.00
HSBC Holdings PLC	600.00	-12.10	Unilever PLC	2992	57.00
Imperial Tobacco Group PLC	3231	-51.00	United Utilities Group PLC	959.50	-22.00
InterContinental Hotels Group PLC	2722	-46.00	Vodafone Group PLC	226.40	-2.90
International Consolidated Airlines Group SA	564.50	-52.50	Weir Group PLC	1872	93.00
Intertek Group PLC	2619	4.00	Whitbread PLC	5240	-180.00
Intu Properties PLC	349.20	-18.20	Wolseley PLC	4049	-57.00
ITV PLC	264.00	-6.60	WPP PLC	1543	-68.00
Johnson Matthey PLC	3430	-99.00			

UK STOCK MARKET TRADING DATA

	Apr 17	Apr 16	Apr 15	Apr 14	Apr 13	Yr Ago
SEAQ Bargains	8269.00	8369.00	8257.00	8894.00	13278.00	13278.00
Order Book Turnover (m)	46.15	47.56	54.04	109.37	88.91	88.91
Order Book Bargains	843710.00	818206.00	806120.00	714135.00	796172.00	796172.00
Order Book Shares Traded (m)	1430.00	1381.00	1265.00	1145.00	1405.00	1405.00
Total Equity Turnover (£m)	4270.74	2557.69	2099.20	2094.07	2782.40	2782.40
Total Mkt Bargains	1006240.00	969692.00	952892.00	860302.00	988482.00	988482.00
Total Shares Traded (m)	5397.00	6125.00	10.00	4624.00	5831.00	5831.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-
A$0.005	Nil	08-05-15	0.26	0.25	Metminco Ltd	0.27	0.00
166p	Nil	01-05-15	305.00	280.31	Optimal Payments PLC	292.25	-212.75

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Amati VCT 2	Pre	-	-	**0.077L**	0.005	**0.27L**	0.02	**3.5**	4	Jul 24	**6.25**	6.75
Havelock Europa	Pre	**83.402**	89.59	**5.767L**	0.632	**13.9L**	0.8	-	-	-	-	-
Inspired Capital	Pre	**16.191**	4.384	**0.454L**	0.82L	**0.013**	0.314L	-	-	-	-	-
Invesco Perpetual UK Smaller Companies Inv Tst	Pre			**4.62**	46.903	**7.4**	6.9	**12.15**	4.9	Jun 5	**13.75**	6.678
Midatech Pharma	Pre	**0.157**	0.147	**8.04L**	4.883L	**26.559L**	14.694L	-	-	-	-	-
Tex Holdings	Pre	**36.021**	38.379	**1.179**	0.744	**13.7**	9.1	**4**	2.5	Jul 24	**6**	4.167

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
04/02	149.00	AIM	MMH	Marshall Motor Holdings PLC	182.00	0.40	184.69	160.00	14057.0
04/02	20.00	AIM	MTFB	Motif Bio PLC	25.38	-1.13	50.00	25.11	1630.1
03/25	5.00		HNR	Highlands Natural Resources PLC	10.50	-0.42	17.90	6.00	210.0
03/23	89.00		LAKE	Lakehouse PLC	100.75	-0.50	101.59	88.75	15870.9
03/10	10.00	AIM	GATE	Gate Ventures PLC	199.00	16.50	199.00	12.00	6520.9

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	+/-Week	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ	35.60	-1.02	37.25	30.47	7.26	13.33	76500.29
BHPBilltn	29.97	-0.22	39.74	26.50	7.06	12.97	74779.86
CmwBkAu	92.08	-1.77	96.69	73.57	6.29	16.87	115983.95
CSL	94.06	-0.20	96.60	63.77	1.33	29.60	34269.11
NatAusBk	38.72	-0.66	39.71	31.33	7.52	17.07	70302.24
Telstra	6.14	-0.13	6.74	5.10	6.94	16.33	58318.21
Wesfarmers	43.00	-0.72	46.95	40.26	6.83	31.03	37540.77
Westpc	38.90	-0.62	40.07	31.33	7.18	16.02	94295.93
WoodsdPet	35.42	1.29	44.23	31.97	9.53	9.81	22672.15
Woolworths	28.53	-0.52	38.92	28.50	6.93	14.72	27997.7
Belgium (€)							
AnBshInBv	114.25	-3.80	118.80	75.30	2.53	23.18	197971.89
Brazil (R$)							
Ambev	18.95	-0.55	19.69	14.99	9.49	22.52	97436.48
BncBrasil	24.55	0.25	38.19	19.90	7.46	4.84	23012.57
BncoBrad	35.30	0.00	36.70	25.93	3.71	18.51	23095.68
Bradesco	30.28	-1.17	41.30	28.80	1.25	9.03	25005.4
Cielo	40.82	-8.24	49.06	36.21	2.85	18.91	25101.39
ItauHlding	33.91	0.13	38.74	28.46	1.62	7.83	30728.35
Petrobras	13.07	1.24	23.50	7.88	4.67	6.71	32308.21
Vale	17.80	-0.62	33.25	17.17	13.38	47.61	18733.66
Canada (C$)							
Alimentation	48.94	-1.47	51.83	28.50	0.37	24.12	16794.4
BCE	53.97	-0.97	60.20	46.43	4.63	17.91	37130.15
BkMontrl	79.33	1.00	85.71	72.87	3.77	12.75	42012.95
BkNvaS	65.88	1.47	74.93	60.75	3.79	12.06	65227.77
Brookfield	70.15	-2.18	72.96	45.08	1.08	15.01	36243.54
CanadPcR	232.13	-5.32	247.56	161.74	0.61	27.11	31228.74
CanImp	95.99	1.61	53.07	88.04	4.03	13.78	31206.40
CanNatRs	41.25	0.80	49.57	31.00	2.21	11.38	36886.91
CanNatRy	81.20	-3.18	88.89	61.80	1.20	22.55	53465.68
Enbridge	64.82	1.48	65.13	47.43	2.19	48.53	45363.91
GtWesLif	36.90	-0.05	37.50	28.61	3.37	14.32	30102.89
ImpOil	54.54	0.99	57.96	44.08	0.96	12.11	37837.57
Manulife	22.00	-0.24	23.09	18.91	2.62	12.12	35473.51
Potash	39.99	-1.26	47.10	35.25	4.10	18.76	27236.25
RylBkC	80.76	1.16	83.87	71.74	3.47	13.43	95362.49
Suncor En	40.12	0.44	47.18	30.89	2.57	21.52	47458.28
ThmReut	50.40	2.30	53.00	37.24	3.07	18.30	32684.24
TntoDom	55.75	0.46	58.20	49.67	3.24	13.99	84398.13
TrnCan	56.42	0.95	63.86	49.30	3.44	22.71	32736.62
ValeantPh	251.15	-9.94	266.60	116.01	-	80.11	70068.87
China (HK$)							
AgricBkCh	4.39	0.30	4.52	3.19	4.88	6.66	174080.01
Bk China	5.38	0.47	5.60	3.36	4.37	7.74	58036.37
BkComm	7.83	0.61	8.05	4.75	3.99	7.38	35364.78
Ch Evrbght	5.44	0.36	5.65	2.96	3.79	7.32	48202.27
Ch Yangtze RMB	12.48	1.30	12.68	5.64	2.09	20.18	19624.62
ChCommCons	15.80	0.36	17.00	5.05	1.38	15.47	9024.22
ChConstBk	7.61	0.59	7.93	5.25	4.72	6.98	236017.68
China Vanke	19.52	0.36	20.35	12.84	-	11.39	3311.2
ChinaCitic	7.13	0.43	7.36	4.44	4.29	6.84	13688.32
ChinaLife	38.65	-0.45	41.00	19.72	0.90	32.97	37101.03
ChinaMBank	23.50	3.78	24.75	13.12	3.16	8.83	14915.91
ChinaMob	107.70	-2.20	118.00	68.60	2.68	17.25	284468.02
ChinaPcfIns	42.40	1.85	44.50	23.55	1.13	28.99	15179.95
ChinaRailCons	16.50	1.40	17.70	6.31	0.94	14.96	4419.44
ChinaRailGp	11.90	1.91	12.06	3.43	0.67	20.60	6458.85
ChMinsheng	11.04	0.64	11.40	6.73	1.92	7.43	9874.66
ChMrtScs RMB	36.80	-0.08	40.00	9.88	0.40	53.33	27675.7
ChShenEgy	20.80	-0.80	24.40	18.62	5.24	9.38	9119.18
ChShpbldng RMB	13.07	3.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ChStConEng RMB	9.03	1.50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ChUnicHK	13.68	-0.26	14.70	9.98	1.39	23.06	42260.37
Daqin RMB	13.37	2.21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
GF Secs RMB	28.97	-1.91	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HaitongSecs	25.20	-0.40	27.90	10.52	0.58	26.28	4852.17
In&CmBkCh	6.79	0.58	6.94	4.56	4.62	7.26	76024.04
IndstrlBk RMB	20.56	0.73	21.42	9.43	2.08	9.09	53672.81
Kweichow RMB	232.56	32.56	248.70	139.22	1.75	19.32	42851.18
PetroChina	10.62	0.69	11.70	7.93	3.58	12.87	28905.49
PingAnIns	108.90	10.60	112.80	55.60	0.78	19.41	52312.74
PngAnBnk RMB	16.93	-1.07	17.50	7.41	0.75	12.25	26870.06
SaicMtr RMB	27.57	2.08	28.36	14.00	4.17	11.34	49045.58
ShgPdgBk RMB	18.60	1.73	19.05	8.90	3.40	7.70	44784.15
Sinopec	7.01	0.42	8.23	5.90	4.13	14.76	23071.8
Denmark (kr)							
DanskeBk	187.20	-3.40	193.40	139.20	1.15	45.14	27267.48
MollerMrsk	13800	-980.00	16450	11020	2.48	20.77	42996.53
NovoB	376.90	-16.40	394.40	229.40	1.29	34.68	144239.29
Finland (€)							
Nokia	7.15	-0.43	7.87	5.13	1.66	22.12	28335.79
SampoA♦	45.51	-3.69	49.40	34.77	3.91	15.36	27400.54
France (€)							
Airbus Grpe	62.18	0.27	64.58	39.64	1.30	27.11	52652.88
AirLiquide	119.85	-2.75	123.55	87.17	2.08	23.01	44591.63
AXA	23.44	-1.04	24.64	16.43	3.72	10.53	61667.41
BNP Parib	55.11	-2.14	58.34	43.14	2.93	-765.46	73982.6
ChristianDior	179.10	-6.00	185.35	126.10	1.86	12.78	35068
Cred Agr	13.40	-0.79	14.36	9.76	2.81	14.86	37197.03
Danone	66.08	1.13	67.00	49.84	2.36	33.06	45836.5
EDF	22.92	-0.13	29.21	20.90	5.88	10.68	45933.06
Essilor Intl	109.25	-3.80	114.20	71.16	0.93	23.45	25423.19
GDF Suez	19.32	0.05	21.19	16.17	6.53	18.00	50680.45
Hermes Intl	335.10	-10.25	349.95	229.00	0.90	38.65	38116.09
Kering	175.35	-1.15	198.50	140.05	2.30	20.34	23855.57
LOreal	176.30	-2.65	179.25	131.65	1.53	34.60	106607.9
LVMH	165.45	-6.95	175.40	121.40	2.05	13.70	90499.05
Nmrcble-SFR	49.84	-4.12	60.01	26.38	-	-59.91	26148.61
Orange	15.41	-0.05	16.45	10.20	4.90	39.72	43966.39
PernodRic	112.50	-1.45	115.70	82.23	1.57	28.45	32172.49
Safran	67.21	-0.94	68.64	43.24	1.92	206.17	30199.28
Sanofi	95.65	-3.10	99.23	69.58	3.15	26.92	135971.09
Schneider	69.62	-4.00	75.29	52.59	3.55	21.04	43860.66
SocGen	44.83	-1.36	46.95	31.85	2.40	14.27	38893.09
StGobn	40.61	-1.41	45.15	29.51	1.70	21.58	24585.81
Total	48.87	-0.55	54.71	36.25	5.75	29.50	125595.86
UnibailR	249.90	-6.90	262.00	180.70	3.84	14.42	26506.89
Vinci	55.80	0.76	57.36	39.65	3.42	11.70	35509.01
Vivendi	23.43	-0.71	24.42	17.26	4.60	-98.85	34158
Germany (€)							
Allianz	161.25	-8.45	170.15	115.05	3.54	10.93	79398.41
BASF	89.18	-7.54	97.22	64.27	3.26	14.75	88253.6
Bayer	133.50	-12.70	146.45	92.00	1.69	29.91	118947.48
BMW	110.40	-6.95	123.75	74.74	2.54	11.60	71607.41
Continental	220.45	-8.70	234.25	136.95	1.22	17.23	47506.06
Daimler	84.81	-3.84	96.07	55.10	2.86	12.10	97759.9
Deut Bank	30.70	-2.39	33.42	22.66	2.51	21.75	45623.07
Deut Tlkm	16.33	-1.17	17.63	10.07	2.47	23.20	79777.61
DeutsPost	29.50	-1.58	31.19	21.55	2.92	16.70	38496.98
E.ON	14.46	0.13	15.46	12.23	4.47	-8.64	31164.55
Fresenius	54.04	-3.43	57.62	34.70	0.83	25.59	25400.4
HenkelKgaA	94.33	-4.86	99.44	66.70	1.37	23.36	26404.5
Linde	183.35	-10.40	195.55	141.35	1.76	28.78	36691.57
MuenchRkv	195.70	-9.60	206.50	141.10	3.99	9.92	36466.05
SAP	66.61	-2.44	69.39	50.08	1.62	22.56	88168.2
Siemens	98.95	-4.50	106.35	80.17	3.27	14.80	93926.38
Volkswgn	228.60	-16.20	254.50	147.35	1.89	8.39	76717.72
Hong Kong (HK$)							
AIA	52.25	-0.40	58.20	36.70	0.80	25.03	82747.7
BOC Hold	29.85	1.40	30.50	22.05	3.24	13.39	40712.5
Ch OSLnd&Inv	29.95	0.50	32.85	17.66	1.37	11.18	31580.89
ChngKong	164.50	-1.20	171.80	123.20	1.85	10.88	49150.71
Citic Ltd	14.84	-0.50	16.88	12.60	2.06	9.87	47674.43
Citic Secs	35.95	0.95	40.50	15.08	0.51	29.12	5464.61
CNOOC	13.32	1.38	15.88	9.72	3.73	9.80	[illegible]
Galaxy Enter	38.55	-2.25	70.15	32.80	-	16.60	21159.88
HangSeng	145.00	2.70	148.40	123.20	3.64	19.11	35761.42
HK & Ch Gas	18.60	0.08	19.00	15.47	1.58	32.24	25494.24
HK Exc&Clr	283.60	44.00	300.00	136.00	1.20	66.73	42742.41
Hutchison	111.80	0.40	117.10	85.90	1.80	33.31	61487.87
MTR	38.55	0.00	40.00	28.30	2.29	14.97	29013.11
SandsCh	34.00	-2.65	42.20	29.50	4.88	14.49	35388.7
SHK Props	125.80	0.40	129.40	93.65	2.55	12.00	46624.48
Tencent	158.80	-1.10	171.00	93.00	0.15	51.36	192044.45
India (Rs)							
HDFC Bk	1018.25	-24.40	1109.3	711.45	0.64	28.48	39431.92
Hind Unilevr	937.65	3.85	981.00	550.25	1.15	54.90	32526.3
HsngDevFin	1306.7	16.35	1402.3	810.00	1.02	25.48	32949.1
ICICI Bk	310.10	-8.20	393.40	247.00	2.81	15.70	28797.36
Infosys	2179.25	-54.70	2336	1440	1.67	20.80	39966.4
ITC	351.85	5.20	409.95	312.50	1.40	33.87	44884.58
OilNatGas	330.00	20.25	471.95	298.80	2.77	11.37	45285.32
RelianceIn	926.85	22.50	1145.25	796.45	0.97	12.47	48094.52
SBI NewA	291.75	6.00	336.00	202.20	0.96	14.52	34936.71
SunPhrmInds	1037.75	-82.00	1200.8	572.00	0.14	38.33	34475.1
Tata Cons	2474.85	-178.90	2839.7	1999.5	1.30	23.78	77753.76
Tata Motors	535.35	-27.30	612.40	404.20	0.35	12.21	21867.91
Indonesia (Rp)							
Astra Int	7975	-175.00	8575	6325	2.24	16.23	25124.9
Bk Cent Asia	14750	-325.00	15600	10600	0.84	22.16	28300.5
Israel (ILS)							
TevaPha	262.80	260.26	267.40	168.60	1.93	19.58	56749.71
Italy (€)							
Enel	4.26	-0.14	4.49	3.36	3.30	13.14	43201.19
ENI	16.86	-0.16	20.46	12.98	7.09	43.47	66017.7
Generali	17.77	-0.79	19.21	14.40	2.73	14.60	29808.25
IntSPaolo	2.98	-0.20	3.24	2.00	1.81	33.07	50946.76
Luxottica	59.15	-1.80	62.50	34.74	1.19	44.99	30722.34
Unicred	5.99	-0.48	6.89	4.82	-	-2.60	37946.69
Japan (¥)							
AstellasPh	1896.5	-99.50	2047	1100	4.22	45.28	35995.07
Bridgestne	5041	-24.00	5104	3328	1.89	13.79	34425.3
Canon	4521	30.00	4539	3153	3.16	20.72	50644.15
CntJpRwy	21540	-770.00	24800	11730	0.53	16.16	37267.38
Denso	5707	176.00	5995	4223	1.75	18.57	42375
EastJpRwy	10670	280.00	10890	7220	1.07	21.89	35263.47
Fanuc	25740	-1685.00	28035	16800	0.88	28.84	51777.97
FastRetail	47760	-740.00	50650	30950	0.96	45.00	42548.84
Fuji Hvy Ind	3998.5	-52.00	4617	2380	1.41	15.20	26290.59
Hitachi	794.10	-21.50	939.90	660.00	1.09	14.86	32236.64
HondaMtr	4228	124.00	4303	3239	1.98	13.43	64323.86
JapanTob	4133	77.00	4193	3101	3.46	-	69424.26
KDDI	2842	-37.50	6412.5	2651.5	1.68	18.48	64229.73
Keyence	62100	-3960.00	69480	36095	0.16	36.03	31712.08
MitsbCp	2497	53.00	2522.5	1816	2.59	12.53	34058.88
MitsubEst	2885	-15.00	2975	2151.5	0.40	41.05	33689.96
MitsubishiEle	1518.5	-1.50	1550	1083	0.40	27.64	27384.42
Mitsui	1640	33.50	1820	1429	3.13	8.23	24745.17
MitsuiFud	3632	-100.00	3809.5	2654.5	0.58	41.73	30247.77
MitsUFJFin	822.00	36.20	826.80	538.00	1.67	10.77	97818.79
Mizuho Fin	222.00	2.00	229.60	178.10	2.39	12.98	45841.37
Murata Mfg	16545	-905.00	17795	8192	0.63	33.18	31302.11
NipponTT	8141	350.00	8280	5330	2.11	17.21	77721.01
Nissan Mt	1252	-12.00	1303.5	856.00	2.40	12.14	47536.49
NpnStlSmMt	316.40	12.50	333.00	243.30	1.51	14.89	25253.56
NTTDCMo	2252.5	75.50	2260	1549	2.54	23.26	77295.62
Panasonic	1557.5	-31.50	1614	1030	0.86	69.29	32088.61
Seven & I	5314	2.00	5494	3794.5	1.29	28.01	39562.86
ShinEtsuCh	7600	-309.00	8529	5816	1.25	28.04	27581.66
Softbank	7664	550.00	8760	6683	0.50	15.78	77284.35
Sony	3555.5	-64.00	3827.5	1588	0.53	-25.65	34924.85
SumitomoF	4951.5	252.00	5020	3800	2.40	9.56	58805.67
Takeda Ph	6095	11.00	6657	4337.5	2.81	94.92	40434.15
TokioMarine	4794.5	76.00	4843.5	2885	1.54	15.57	30503.93
Toyota	8297	-70.00	8783	5376	1.60	13.63	238181.89
Malaysia (RM)							
Maybank	9.49	0.00	10.20	8.25	8.49	12.81	24400.32
Mexico (MeX$)							
AmerMvl	16.87	0.67	17.64	12.39	1.43	18.57	74441.34
FEMSA UBD	143.52	-3.95	149.93	116.23	0.73	30.44	33558.79
WalMrtMex	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Netherlands (€)							
ASML Hld	88.22	-6.48	102.40	57.51	0.69	28.47	41658.78
Heineken	73.19	-1.50	75.33	48.66	1.31	25.81	45422.61
ING	13.45	-0.69	14.34	9.34	-	29.03	55972.17
Philips	26.45	-0.93	27.68	20.69	-	102.29	26640.92
Unilever	41.26	0.36	42.75	28.75	2.93	21.40	76229.01
Norway (Kr)							
DNB	135.10	-1.80	139.20	98.10	2.00	10.65	28140.38
Statoil	156.30	2.20	195.80	118.20	5.67	22.75	63734.2
Telenor	167.80	-2.00	172.00	128.90	4.69	34.06	32219.02
Qatar (QR)							
Inds Qatar	146.00	1.00	200.00	127.00	7.20	14.58	24263.15
QatarNtBk	188.50	-0.90	237.00	160.00	3.99	12.28	36231.01
Russia (RUB)							
Gazprom neft	149.30	1.30	166.94	113.73	5.91	3.35	67297.64
Lukoil	2576	-58.90	3297.7	1815.6	-	7.14	41718.61
Rosneft	256.00	-0.95	294.20	183.95	6.15	5.64	51659.33
Saudi Arabia (SR)							
SaudiBasic	87.00	1.50	136.50	70.25	5.81	11.24	69592.59
SaudiTelec	63.00	1.50	76.50	55.00	3.79	12.04	33596.42
Singapore (S$)							
DBS	21.19	0.77	21.23	16.64	2.67	13.36	39016.25
JardnMt US$	61.76	-0.20	67.88	57.00	2.19	13.97	42665.02
JardnStr US$	34.75	-0.22	38.10	32.33	0.72	11.98	38923.56
OCBC	10.89	0.23	10.92	9.38	3.09	10.75	32205.86
SingTel	4.46	0.09	4.57	3.63	3.67	19.54	52816.56
UOB	24.11	0.75	24.72	21.02	2.83	12.16	28691.83
South Africa (R)							
Firstrand	56.90	-0.38	57.91	37.18	3.06	15.76	26440.77
MTN Grp	228.29	7.56	263.44	198.00	4.87	13.09	34937.29
Naspers N	1834.12	-110.87	2029.97	983.25	0.19	65.50	63692.95
Sasol	467.47	43.72	652.99	360.00	4.52	9.88	25206.63
South Korea (KRW)							
HyundMobis	240500	7500	313500	226000	1.18	11.36	21201.11
KoreaElePwr	47550	4450	50200	36850	0.18	11.05	27335.89
SK Hynix	44550	2650	52400	37850	0.64	8.97	29860.58
SmsungEl	1450000	-33000.00	1510000	1078000	0.93	9.50	174206.84
Spain (€)							
BBVA	9.20	-0.36	9.99	7.21	0.94	19.26	61697.9
BcoSantdr	6.56	-0.50	7.96	5.77	9.45	13.23	99335.51
CaixaBnk	4.25	-0.15	5.00	3.71	-	36.33	26163.47
GasNatur	21.83	-0.31	24.45	18.59	4.43	13.88	23536.88
Iberdrola	6.00	-0.14	6.27	4.82	5.04	15.08	41313.3
Inditex	29.43	-1.46	31.05	19.29	1.36	35.13	98809.93
Repsol	18.11	-0.05	21.07	14.26	2.28	22.71	26816.41
Telefonica	13.48	0.29	14.00	10.76	3.16	19.25	67616.09
Sweden (SKr)							
AtlasCpcoB	254.60	-10.70	266.90	165.20	2.29	24.02	35867.45
Ericsson♦	107.10	-6.30	120.00	77.55	2.97	28.57	40155.4
H & M	349.00	-9.00	368.50	261.00	2.73	27.49	66809.33
Investor	343.30	-10.20	354.20	219.30	2.47	4.88	30462.33
Nordea Bk	106.90	-1.80	115.50	82.40	4.04	12.68	49790.69
SEB	100.70	-0.90	111.50	82.30	4.21	10.89	25492.1
SvnskaHn	375.10	-17.40	426.00	305.10	3.25	15.10	27578.94
Swedbank	199.20	-5.70	223.90	165.70	5.37	12.49	25392.23
TeliaSonera	50.60	-0.65	55.85	44.32	6.28	14.26	25342.04
Switzerland (SFr)							
ABB	20.79	-0.29	23.29	16.75	3.49	20.29	50470.38
CredSuisse	26.61	-0.51	28.45	18.57	2.42	28.62	44852.4
Nestle	75.95	0.05	77.00	64.15	2.61	18.24	256867.93
Novartis	97.20	-4.20	101.60	73.75	2.59	24.66	275869.91
Richemont	82.05	-2.40	94.75	68.80	1.52	23.33	44918.83
Roche	270.20	-8.10	295.80	238.60	2.66	27.14	199090.13
SwatchGpI	432.50	-13.20	571.50	350.00	1.60	10.29	13988.78
Swiss Re	94.25	-2.40	96.95	69.25	4.23	11.19	36643.03
Swisscom	541.00	-8.50	587.50	500.00	3.74	17.97	29391.56
Syngent	328.10	-17.90	350.30	273.20	3.16	20.38	31882.66
UBS	18.85	-0.19	19.18	13.58	1.22	22.69	73927.55
Zurich Fin	301.60	-13.00	334.60	246.90	5.81	12.64	47547.75
Taiwan (NT$)							
HonHaiPrc	92.30	-0.70	113.00	83.00	1.64	11.18	43917.83
MediaTek	401.00	-21.00	545.00	364.50	3.53	14.18	20269.93
TaiwanSem	142.50	-0.50	155.00	116.00	1.99	15.40	118848.69
Thailand (THB)							
PTT Explor	361.00	29.00	398.00	291.00	1.90	19.77	31829.75
United Kingdom (p)							
AngloAmer	1010.5	-11.50	1678.5	923.00	5.42	-8.05	21110.66
AscBrfd	2906	-111.00	3293	2407	1.20	30.13	34412.38
AstraZen	4750	-3.00	5750	3757	3.82	75.93	89729
Barclays	255.30	-1.75	269.60	201.75	2.59	-347.35	62935.14
BG	1192.5	24.50	1420	780.55	1.62	-60.37	60893.45
BHP	479.35	7.10	526.80	364.40	5.29	36.57	130773.78
BrAmTob	3724	8.00	3894	3303	3.89	22.36	106850.94
BSkyB	850.50	-34.50	954.00	782.50	3.76	9.03	23005.52
BT	450.00	-4.65	471.45	351.90	2.28	18.35	54812.93
Compass	1162	-57.00	1223.36	924.41	2.43	23.86	28986.33
Diageo	1876.5	-62.00	2055	1689.5	2.76	24.18	70481.96
GlaxoSmh	1575.5	-66.50	1689	1200.67	5.08	27.81	114610.67
Glencore	298.55	8.90	379.45	236.25	3.67	26.53	58921
HSBC	600.00	-12.10	737.00	550.67	5.24	13.02	172234.77
ImpTob	3231	-51.00	3299.33	2472	3.99	21.81	46291.67
LlydsBkg	78.75	-0.55	81.82	70.72	-	40.41	84081.29
Natl Grid	887.60	-19.90	965.00	813.00	4.92	15.55	49943.73
Prudential	1636.5	-79.50	1761.5	1287	2.14	18.85	62838.27
RBS	349.20	0.30	414.00	294.70	-	698.40	33205.16
ReckittB	5940	-176.00	6120	4735	2.31	26.10	63844.76
Reed Els	1130	-49.00	1199	851.53	2.21	26.58	35240.37
RioTinto	2801	-36.00	3530.5	2600	4.68	12.44	59236.58
RollsRoyce	978.50	3.50	1094	777.00	2.29	250.90	27656.03
RylDShlA	2089	62.50	2475.5	1916.79	5.91	13.82	114610.67
SABMill	3623.5	-46.50	3857	2999	1.78	26.14	87444.54
Shire	5430	-250.00	5755	2893	0.25	15.25	47830.56
SSE	1559	-2.00	1858	1422.93	5.75	75.46	23027.25
StandCh	1050	-59.00	1355.5	867.50	5.26	15.50	38831.01
Tesco	236.70	-14.30	320.70	155.45	6.45	22.43	29759.86
Vodafone	226.40	-2.90	245.90	179.10	6.16	62.37	89771.62
WPP	1543	-68.00	1616	1091	2.22	20.52	30421.27
United States of America ($)							
3M	161.71	-5.36	170.50	130.60	2.03	22.52	102737.09
AbbottLb	46.25	-0.90	47.88	37.78	1.83	43.05	69790.22
Abbvie	62.29	0.29	70.76	47.72	2.56	58.93	99174.75
Accenture	92.39	-2.30	96.78	73.98	2.04	21.50	73486.45
Ace	110.14	-1.76	117.89	99.45	2.80	13.64	36034.08
Actavis	297.05	2.26	317.72	193.00	-	-41.72	83426.36
Adobe	73.15	-3.38	80.30	57.15	-	125.44	36594.68
AEP	55.73	-0.66	65.38	49.06	3.49	17.38	27286.55
Aetna	107.72	-0.19	109.90	66.85	0.80	19.76	37606.73
Aflac	63.98	-0.54	65.10	54.99	2.25	10.20	28081.26
AirProd	149.85	-2.07	158.20	115.63	1.97	32.90	32108.97
Alexion	181.34	-1.34	203.30	147.30	-	58.02	36202.24
Allergan	240.22	4.96	241.78	115.94	0.08	50.71	73893.08
Allstate	70.87	-1.16	72.67	54.93	1.52	11.79	29347.1
Altria	51.75	-0.76	56.70	37.88	3.71	21.10	101805.48
Amazon	375.56	-7.09	389.37	284.00	-	-750.49	174404.03
AmerAir	48.19	0.46	56.20	28.10	0.80	12.75	33571.56
AmerExpr	77.32	-2.27	96.24	76.53	1.54	14.39	78530.11
AmerIntGrp	57.43	0.84	58.73	48.56	0.84	11.42	77758.47
AmerisBrg	129.19	4.66	138.26	101.67	1.68	16.21	23552.83
AmerTower	96.10	1.03	105.20	82.31	1.40	50.04	40657.25
Amgen	163.58	0.20	173.14	108.20	1.43	25.46	123979.49
Anadarko	93.68	3.58	113.51	71.00	1.01	-28.24	48289.93
Aon Cp	98.17	-2.08	107.08	78.26	0.92	21.50	27097.23
AppldMat	21.49	-1.01	25.71	18.27	1.85	22.83	26404.69
Apple	124.75	-2.35	133.60	74.17	1.42	17.59	726637.31
ArcherDan	48.28	0.32	53.91	41.63	1.91	14.69	30365.03
AT&T♦	32.51	-0.26	37.48	32.07	5.46	28.43	168732.36
AutomData	83.53	-2.81	90.23	70.50	2.22	26.97	39689.46
Avago Tech	121.85	-4.97	136.28	58.92	1.01	65.05	31265.15
BakerHu	66.98	0.44	75.64	47.51	0.92	17.83	29107.12
BankAm	15.56	-0.16	18.21	14.37	0.74	45.31	163697.36
Baxter	69.91	-0.66	77.31	65.95	2.81	20.47	37998.27
BB & T	38.52	-0.52	40.21	34.50	2.37	14.60	27767.26
BectonDick	141.53	-1.68	149.98	111.07	1.51	25.33	27306.63
BerkshHat	212982	-2229.00	229374	185005	-	18.36	182409.07
Biogen	419.44	-6.21	480.18	275.39	-	35.34	98406.69
BkNYMelln	40.50	-0.36	41.79	33.02	1.56	19.26	45142.89
BlackRock	365.40	-4.05	382.84	293.39	2.03	19.79	60439.01
Boeing	149.60	-4.78	158.83	116.32	1.87	21.13	105376.39
BrisMySq	65.35	0.71	69.20	46.30	2.13	56.77	108916.82
Broadcom	43.59	-0.64	46.31	29.30	1.06	41.89	23962.21
CapOne	82.00	1.39	85.39	72.63	1.40	11.28	45055.57
CardinalHlth	89.55	-0.97	91.59	63.06	1.42	28.83	29563.21
Carnival	47.01	-1.32	49.21	33.11	2.06	28.98	27862.27
Caterpillar	83.28	0.68	111.46	78.19	2.99	14.78	50417.62
CBS	60.68	-0.92	65.24	48.83	0.85	26.25	27760.25
Celgene	113.47	-3.60	129.06	68.38	-	49.45	90843.02
CharlesSch	30.25	-0.45	31.73	23.35	0.76	32.88	39718.3
ChevronTx	109.11	2.20	135.10	98.88	3.70	11.22	205178.92
Chubb	100.33	-0.18	105.30	86.40	1.91	12.13	23161.87
Cigna	131.13	-2.18	135.00	73.47	0.03	17.47	33889.59
Cisco	27.92	-0.13	30.31	22.43	2.71	16.74	142498.78
Citigroup	53.07	0.64	56.95	46.08	0.07	25.15	161063.96
CME Grp	89.91	-2.36	100.61	67.54	2.01	27.95	30349.04
Coca-Cola	40.30	-0.58	44.87	39.06	2.90	26.34	176050.26
Cognizant	60.70	-2.10	64.69	41.51	-	26.93	37003.73
ColgtPlm	69.28	-0.33	71.56	62.53	1.97	30.62	62825.66
Comcast	58.42	-1.39	60.70	48.75	1.49	19.03	124501.07
ConocPhil	67.69	1.16	87.09	60.57	4.02	15.34	83357.64
Corning	22.46	0.04	25.16	17.03	1.71	13.52	28497.22
Costco	144.57	-5.07	156.85	111.61	0.95	29.19	63607.08
Covidien	106.71	3.33	108.57	65.97	1.54	28.15	48500.47
CrownCstl	85.84	1.15	89.44	71.29	2.09	86.06	28650.13
CSX	33.30	-0.45	37.99	27.58	1.94	16.74	32899.78
Cummins	133.84	-2.71	151.03	124.20	2.01	15.47	24451.47
CVS	100.39	-2.15	105.46	72.43	1.05	26.43	113969.37
Danaher	84.22	-0.76	88.10	70.12	0.46	24.19	59553.23
Deere	87.51	-1.56	94.89	78.88	2.63	10.99	29709.31
Delta	44.76	1.53	51.06	30.12	0.74	31.24	36537.44
DevonEngy	65.92	1.06	80.63	51.76	1.37	17.57	27099.71
DirecTV	86.60	-0.72	89.46	74.98	-	16.71	43542.6
DiscFinServ	59.08	1.12	66.75	54.02	1.49	12.56	26357.67
Disney	106.69	-0.26	108.94	76.88	1.03	24.71	181326.42
DominRes	71.47	-0.43	80.89	64.71	3.22	33.26	42034.23
DowChem	49.66	1.27	54.97	41.45	2.96	17.90	57209.46
DukeEner	77.31	-0.53	89.97	68.81	3.91	23.29	54680.64
DuPont	71.55	-0.68	80.65	63.70	2.47	19.12	64782.37
Eaton	69.11	0.42	79.98	57.76	2.72	19.16	32310
eBay	55.79	-1.55	60.93	46.34	-	195.29	67653.8
Ecolab	115.20	-1.16	118.46	97.78	0.96	30.54	34254.7
EMC	26.61	0.78	30.92	24.92	1.60	21.04	52603.32
Emerson	58.43	1.58	69.94	54.95	2.89	19.31	40036.35
EOG Res	97.23	0.64	118.89	81.07	0.50	19.07	53328.14
EquityResTP	75.32	-0.30	82.53	57.19	2.55	45.65	27401.29
Exelon	32.99	-0.39	38.93	30.66	3.61	18.31	28365.9
ExpScripts	85.55	-3.30	89.59	64.64	-	33.78	62348.23
ExxonMb	86.93	1.37	104.76	82.68	2.98	11.93	364192.37
Facebook	80.78	-1.27	86.07	54.66	-	76.69	180639.87
Fedex	168.00	-6.37	183.51	133.52	0.35	19.87	47671.12
FordMtr	15.76	-0.27	18.12	13.26	3.04	20.85	61527.18
Franklin	51.18	-0.55	59.43	49.12	0.96	14.25	31825.1
FreeportMc	20.67	2.37	39.32	16.43	5.80	-17.12	21493.97
GenDyn	131.27	-4.64	145.92	106.54	1.77	17.48	43542.86
GenElectric	27.25	-1.26	28.68	23.41	3.13	18.81	274268.78
GenGrwthPp	28.56	-0.25	31.70	22.53	2.12	76.34	25288.13
GenMills	56.09	-0.40	57.73	48.32	2.83	28.10	33434.69
GenMotors	36.64	0.07	39.00	28.82	3.14	29.97	59180.03
GileadSci	101.38	-0.39	116.83	69.09	-	14.38	150352.89
GoldmSchs	197.35	1.71	202.87	153.71	1.09	12.05	85332.87
Google	532.74	-15.80	608.91	490.91	-	27.40	152863.54
Halliburton	46.89	0.63	74.33	37.21	1.29	12.13	39842.96
HCA Hold	78.04	-0.20	80.20	48.10	-	19.54	32738.06
HewlPack	32.53	0.42	41.10	31.00	1.91	12.49	59125.19
HiltonWwde	29.60	-1.35	31.34	20.72	-	45.21	29228.39
HlthcareREIT	75.25	-0.93	84.88	61.23	4.05	54.86	26348.83
HomeDep	112.10	-3.14	117.59	74.81	1.59	26.02	145546
Honywell	101.70	-3.00	106.15	82.89	1.76	19.62	79389.97
IBM	160.67	-2.19	196.88	149.52	2.54	10.74	158810.11
IllinoisTool	95.87	-1.67	100.14	79.06	1.81	21.40	35790.45
Illumina	191.16	3.00	213.33	128.38	-	84.01	27533.92
IntentExch	223.67	-8.24	240.05	182.40	1.12	27.56	24995.93
Intel	32.47	0.54	37.90	25.74	2.66	14.62	153978.62
Intuit	95.58	-3.31	103.60	73.50	0.92	34.92	26449.48
John&John	99.58	-2.48	109.49	95.10	2.66	18.21	276888.12
JohnsonCn	50.54	0.45	52.00	38.60	1.75	23.75	33034.55
JPMrgnCh	62.84	1.14	64.48	52.97	2.41	12.38	234287.16
Kimb-Clark	106.78	-0.08	119.01	99.20	3.02	28.47	38996.11
KinderM	43.90	0.97	44.09	32.10	3.71	51.42	93509.28
Kraft♦	86.73	-2.54	91.32	53.33	2.38	51.84	51008.24
Kroger	71.84	-5.23	77.74	44.07	0.91	21.54	35281.1
L Brands	89.44	-5.24	95.78	53.03	1.51	25.68	26154.92
LasVegasSd	55.16	-4.13	81.25	49.82	3.48	16.36	44045.83
LibertyGbl	50.57	-1.99	55.86	38.90	-	-40.86	12691.82
Lilly (E)	72.47	-1.45	77.46	57.35	2.59	33.95	80514.54
LinkedIn	253.75	-11.60	276.18	136.02	-	-2062.77	27757.79
Lockheed	194.82	-5.58	207.06	155.82	2.70	18.12	61617.97
Lowes	72.55	-2.35	76.25	44.13	1.19	26.73	69046.17
Lyondell	95.65	4.24	115.40	70.06	2.71	12.46	45624.79
Marathon Ptl	98.72	-1.70	108.32	74.64	1.79	11.70	26949.14
Marsh&M♦	56.19	-0.93	58.74	47.84	1.81	22.44	30253.15
MasterCard♦	86.93	-1.64	93.00	69.64	0.54	29.29	96601.93
McDonald's	94.88	-2.92	103.78	87.62	3.32	20.50	91001.98
McGraw Hill	102.86	-2.25	109.13	73.04	1.12	-99.28	28192.3
McKesson	228.03	3.69	232.69	164.58	0.40	32.45	53095.54
Medtronic	76.49	-1.44	79.50	57.81	1.56	24.63	75290.37
Merck	56.88	-0.37	63.62	52.49	2.99	14.56	160882.43
Metlife	50.50	-0.32	57.57	46.10	2.52	9.71	56430.77
MicronTech	28.02	0.00	36.59	23.03	-	8.89	30304.76
Microsoft	41.62	-0.11	50.05	38.51	2.65	17.52	341400.53
MondelezInt	36.97	-0.44	39.54	31.83	1.51	30.10	60973.04
Monsanto♦	116.70	-3.44	128.79	105.76	1.53	25.87	55561.2
MorganStly	36.75	0.51	39.19	29.02	0.91	23.79	72459.18
News Corp A	33.43	-0.91	39.27	31.01	0.72	8.27	44382.15
NextEraE	103.15	-1.75	112.64	90.33	2.70	19.20	45811.37
Nike	98.55	-1.42	103.79	71.10	1.02	29.11	67229.79
NorfolkS	100.65	-5.70	117.64	92.69	2.12	16.44	32876.82
Northrop	160.16	-5.19	172.30	117.17	1.62	17.12	32352.21
NtlOilVarc	54.59	0.16	86.55	46.08	2.88	9.98	21529.29
Occid Pet	80.53	2.08	101.38	71.70	3.43	-466.37	62053.71
Oracle♦	43.00	-0.51	46.71	35.82	1.08	18.58	187784.01
Paccar	62.77	-0.47	71.15	55.34	1.31	17.15	22262.38
Pepsico	95.81	-0.39	100.76	84.49	2.54	23.42	142025.73
Pfizer	35.04	-0.40	35.53	27.51	2.85	25.91	214755.09
PG&E	52.36	-0.68	60.21	42.85	3.33	17.86	25031.51
Phillips66	78.01	-0.33	87.98	57.33	2.32	11.45	42306.94
PhilMorris	85.26	7.36	91.63	75.27	4.37	18.66	132075.66
PNCFin♦	90.93	-2.55	96.71	76.69	1.98	12.90	47346.32
PPG Inds	226.61	-2.89	237.90	171.56	1.11	29.16	30909.03
PPL	33.29	-0.76	38.14	31.31	4.29	14.58	22214
Praxair	120.45	-1.91	134.84	117.32	2.07	21.91	34763.26
Prec Cast	201.15	-11.85	275.09	186.17	0.06	16.15	28516.57
Priceline	1187.53	-1.97	1329.9	990.69	-	27.10	61679.35
ProctGmbl	82.53	-0.82	93.89	77.29	2.94	22.79	222873.08
Prudntl	79.13	-1.21	94.30	74.51	2.63	26.26	35939.55
PublStor	190.07	-3.62	206.92	162.34	2.83	37.74	32836.65
Qualcomm	67.12	-2.05	81.97	62.26	2.30	14.79	110710.23
Raytheon♦	107.72	-2.24	113.36	89.17	2.16	16.11	33217.4
Regen Pharm	447.52	-13.87	495.50	269.50	-	152.00	45040.69
ReynoldsAm	74.70	0.34	76.23	53.17	3.44	28.84	39741.38
Salesforce	65.81	-1.83	71.00	48.18	-	-157.00	42815.99
Schlmbrg	92.86	3.75	118.76	75.60	1.65	22.46	118666.39
SempraEgy	106.67	-1.18	116.30	96.13	2.37	24.01	26383.65
Shrwin-Will	282.14	-8.51	292.51	193.30	0.75	33.31	26822.67
SimonProp	188.26	-3.01	206.31	162.43	2.62	44.20	59185.49
SouthCpr	30.00	0.96	33.90	23.60	1.47	19.43	24123.03
SouthwestAir	41.79	-1.03	47.17	23.03	0.51	26.69	27998.25
SpectraEn	37.85	0.74	43.12	32.43	3.48	24.50	25409.48
Starbucks	47.62	-0.55	49.60	34.57	1.11	30.10	35705.48
StateSt	75.68	-0.67	80.92	62.67	1.47	17.27	31153.53
Stryker♦	92.50	-1.24	98.24	75.78	1.31	71.67	35055.36
Sychrony Fin	30.52	-0.07	33.96	22.60	-	11.43	25446.5
Target	80.02	-3.55	83.98	55.25	2.36	20.98	51351.94
TE Connect	69.78	-1.22	73.73	51.03	1.54	15.87	28346.09
TeslaMotors	206.79	-4.11	291.42	177.22	-	-91.30	25927.7
TexasInstr	57.33	-0.37	59.99	41.47	2.07	22.88	60032.67
TheTrvelers	105.40	-2.25	110.49	86.01	1.96	10.19	33618.18
ThrmoFshr	132.10	-1.63	139.03	107.33	0.44	29.24	52583.32
TimeWrnr	83.40	-2.09	88.25	63.42	1.46	19.71	69265.53
TimeWrnrC♦	149.61	-11.20	161.14	128.78	1.92	21.73	42025.5
TJX Cos	65.25	-3.28	71.03	51.91	1.02	20.81	44596.65
UnionPac	108.42	-3.00	124.52	91.16	1.69	19.66	95277.41
UPS B	95.38	-1.41	114.40	94.05	2.70	30.30	66989.56
USBancorp	42.44	-1.31	46.10	38.10	2.18	14.37	75658.02
Utd Cntl Hldg	61.49	0.44	74.52	36.65	-	22.08	23626.08
UtdHlthcre	118.71	-0.29	123.76	73.61	1.14	21.71	112967.36
UtdTech	115.11	-3.35	124.45	97.30	1.97	17.59	104571.69
ValeroEngy	57.56	-2.17	64.49	42.53	1.75	8.61	29587.49
Verizon♦	48.90	-0.32	53.66	45.09	4.24	21.08	203199.46
VertexPharm	125.07	-3.40	136.33	62.41	-	-41.52	30278.06
VF Cp	73.74	-1.84	77.83	59.57	1.44	32.30	31375.48
Viacom	69.14	-0.13	89.76	63.11	1.79	13.24	24555.39
Visa Inc	64.52	-1.82	69.66	48.80	0.62	30.07	31676.88
Walgreen	76.05	-0.46	77.98	55.27	1.71	36.06	72276.92
WalMartSto	77.88	-2.77	90.97	72.61	2.46	15.67	251245.76
Wellpoint	128.71	1.56	129.96	81.84	1.36	14.31	34744.16
WellsFargo	54.05	-0.27	56.29	46.44	2.40	13.75	278480.78
WestrnDigl	99.44	3.55	114.69	80.78	1.45	16.02	22973.78
Williams Cos	51.72	0.84	59.77	40.07	3.63	18.53	38733.73
Yahoo	44.45	-0.73	52.62	32.93	-	6.19	41610.58
Yum!Brnds♦	79.75	-0.27	83.58	65.81	1.83	35.83	34563.2

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
ChShpbldng	13.07	11.88	1.19	10.02	3.08	30.8	47.35
ChStConEng	9.03	8.36	0.67	8.01	1.50	19.9	42.88
Daqin	13.37	12.87	0.50	3.89	2.21	19.8	24.72
ChinaMBank	23.50	24.30	-0.80	-3.29	3.78	19.2	28.00
ChinaRailGp	11.90	11.32	0.58	5.12	1.91	19.1	95.08
HK Exc&Clr	283.60	286.40	-2.80	-0.98	44.00	18.4	62.06
Kweichow	232.56	226.27	6.29	2.78	32.56	16.3	20.02
FreeportMc	20.67	20.83	-0.16	-0.77	2.37	13.0	18.66
Ch Yangtze	12.48	12.24	0.24	1.96	1.30	11.6	19.77
CNOOC	13.32	13.34	-0.02	-0.15	1.38	11.6	29.57
PingAnIns	108.90	109.70	-0.80	-0.73	10.60	10.8	26.11
Petrobras	13.07	13.07	0.00	0.00	1.24	10.5	52.35
KoreaElePwr	47550.00	46000.00	1550.00	3.37	4450.00	10.3	9.44
Sasol	467.47	478.88	-11.41	-2.38	43.72	10.3	20.79
ShgPdgBk	18.60	18.65	-0.05	-0.27	1.73	10.3	20.23
Bk China	5.38	5.52	-0.14	-2.54	0.47	9.6	22.55
PhilMorris	85.26	84.96	0.30	0.35	7.36	9.4	9.46
In&CmBkCh	6.79	6.94	-0.15	-2.16	0.58	9.3	21.68
ChinaRailCons	16.50	16.28	0.22	1.35	1.40	9.3	78.38
PTT Explor	361.00	355.00	6.00	1.69	29.00	8.7	13.88

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Cielo	40.82	40.82	0.00	0.00	-8.24	-16.8	-10.71
Nmrcble-SFR	49.84	50.44	-0.60	-1.19	-4.12	-7.6	-7.70
SampoA	45.51	49.15	-3.64	-7.41	-3.69	-7.5	-2.76
Unicred	5.99	6.21	-0.22	-3.54	-0.48	-7.4	-3.62
SunPhrmInds	1037.75	1087.95	-50.20	-4.61	-82.00	-7.3	0.77
SandsCh	34.00	34.00	0.00	0.00	-2.65	-7.2	10.21
BcoSantdr	6.56	6.77	-0.21	-3.07	-0.50	-7.1	1.50
LasVegasSd	55.16	56.22	-1.06	-1.89	-4.13	-7.0	3.45
TimeWrnrC	149.61	158.20	-8.59	-5.43	-11.20	-7.0	-4.14
ASML Hld	88.22	88.50	-0.28	-0.32	-6.48	-6.8	-12.65
Kroger	71.84	73.37	-1.53	-2.09	-5.23	-6.8	-5.47
Tata Cons	2474.85	2582.80	-107.95	-4.18	-178.90	-6.7	-3.41
MollerMrsk	13800.00	14080.00	-280.00	-1.99	-980.00	-6.6	-9.21
IntSPaolo	2.98	3.10	-0.11	-3.68	-0.20	-6.3	-3.87
GF Secs	28.97	28.87	0.10	0.35	-1.91	-6.2	23.38
Fanuc	25740.00	26250.00	-510.00	-1.94	-1685.00	-6.1	-3.44
Keyence	62100.00	63920.00	-1820.00	-2.85	-3960.00	-6.0	-4.63
PngAnBnk	16.93	17.00	-0.07	-0.41	-1.07	-5.9	31.84
Naspers N	1834.12	1935.00	-100.88	-5.21	-110.87	-5.7	6.63
Tesco	236.70	241.05	-4.35	-1.80	-14.30	-5.7	-0.19

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Apr 17	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
Windstream Services, LLC	11/17	7.88	B	B1	BB	107.61	4.70	0.00	0.13	4.19
High Yield Euro										
Kazkommerts Intl BV	02/17	6.88	B	Caa1	B	98.00	-	0.00	0.00	-
Emerging US$										
Peru	05/16	8.38	BBB+	A3	BBB+	121.00	1.23	0.00	0.00	0.71
Mexico	09/16	11.40	BBB+	A3	BBB+	114.76	0.75	-0.02	-0.30	0.24
Brazil	01/18	8.00	BBB-	Baa2	BBB	107.97	4.88	0.03	0.08	4.37
Russia	07/18	11.00	BB+	Ba1	BBB-	123.13	3.46	0.00	-1.58	2.95
Peru	03/19	7.13	BBB+	A3	BBB+	118.70	2.16	0.00	-0.04	0.84
Brazil	01/21	7.88	BBB-	Baa2	BBB	106.26	3.67	-0.03	-0.74	2.34
Turkey	03/21	5.63	-	Baa3	BBB-	108.96	3.96	0.00	-0.03	2.63
Poland	04/21	5.13	A-	A2	A-	118.00	2.63	0.00	0.00	1.30
Colombia	07/21	4.38	BBB	Baa2	BBB	106.50	3.24	0.00	-0.32	1.91
Turkey	04/26	4.25	-	Baa3	BBB-	97.30	4.62	0.01	0.00	2.73
Emerging Euro										
Brazil	02/15	7.38	BBB-	Baa2	BBB	111.75	0.73	0.00	0.00	0.09
Mexico	07/17	4.25	BBB+	A3	BBB+	111.13	1.50	0.00	0.00	0.98
Mexico	02/20	5.50	BBB+	-	BBB+	112.69	2.66	-0.01	-0.01	1.34
Bulgaria	09/25	5.75	BB+	-	BBB-	125.16	2.96	-0.02	-0.06	1.07

Data provided by SIX Financial Information & Tullett Prebon Information. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

Apr 17	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
Citigroup Inc.	11/26	4.30	BBB+	Baa3	A-	103.35	3.98	0.01	-0.07	2.09
JPMorgan Chase & Co.	12/26	4.13	A-	Baa1	A	101.95	3.95	0.01	0.08	2.07
Halliburton Company	02/27	6.75	A	A2	A-	125.76	4.03	0.01	-0.39	-
SouthTrust Bank	12/27	6.57	A+	A1	A+	124.05	4.15	0.01	-0.03	-
Duke Energy Florida, Inc.	02/28	6.75	A-	A3	A-	127.37	4.03	0.01	-0.05	-
GTE Corporation	04/28	6.94	BBB+	Baa2	A-	126.90	4.27	0.01	-0.01	-
Euro										
Goldman Sachs Group, Inc. (The)	06/26	2.88	A-	Baa1	A	115.22	1.39	-0.02	-0.12	-0.50
Citigroup Inc.	09/26	2.13	A-	Baa2	A	107.85	1.38	-0.02	-0.12	-0.51
Credit Agricole S.A.	03/27	2.63	BBB	Baa3	A-	103.30	2.30	-0.02	0.88	-
Philip Morris Intl, Inc.	05/29	2.88	A	A2	A	120.82	1.25	-0.02	-0.25	-
Yen										
Wal-Mart Stores, Inc.	07/15	0.94	AA	Aa2	AA	100.19	0.24	0.00	-0.03	-
£ Sterling										
IPIC GMTN Limited	03/26	6.88	AA	Aa2	AA	134.98	3.05	-0.01	-0.17	1.17
Barclays Bank plc	09/26	5.75	BBB-	Baa3	A-	117.97	3.78	0.06	0.17	1.89

Data provided by SIX Financial Information. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

Apr 17	Rate	Current	Since	Last	Mnth Ago	Year Ago
US	Fed Funds	0.00-0.12	16-12-2008	0.12	0.00-0.25	0.00-0.25
US	Prime	3.25	16-12-2008	3.25	3.25	3.25
US	Discount	0.75	18-02-2010	0.75	0.75	0.75
Euro	Repo	0.05	10-09-2014	0.15	0.05	0.25
UK	Repo	0.50	05-03-2009	0.50	0.50	0.50
Japan	O'night Call	0.00-0.31	05-10-2010	0.03	0.00-0.10	0.00-0.10
Switzeland	Libor Target	0.00-0.25	03-08-2011	0.00-0.75	0.00-0.25	0.00-0.25

INTEREST RATES: MARKET

Apr 17 (Libor: Apr 16)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	0.12200	0.000	0.001	0.000	0.18055	0.27510	0.40265	0.69140
Euro Libor	-0.17286	0.001	-0.011	-0.002	-0.04357	-0.00143	0.06000	0.18214
£ Libor	0.48063	0.000	0.000	-0.001	0.50194	0.57000	0.69000	0.97275
Swiss Fr Libor				-0.006	-0.84900	-0.81400	-0.72660	-0.61760
Yen Libor				0.003	0.07071	0.09429	0.13943	0.26043
Euro Euribor				-0.003	-0.03200	0.00200	0.07000	0.17800
Sterling CDs				0.000	0.50000	0.55000	0.72500	
US$ CDs				-0.020	0.15000	0.22000	0.32000	
Euro CDs				0.000	-0.15000	-0.02500	0.03500	

Apr 17	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	-0.20	-0.05	-0.20	-0.05	-0.15	0.00	-0.11	0.04	-0.05	0.10	0.07	0.22
Sterling	0.40	0.55	0.40	0.55	0.45	0.55	0.50	0.60	0.65	0.80	0.95	1.10
Swiss Franc	-	-	-	-	-	-	-	-	-	-	-	-
Canadian Dollar	-	-	-	-	-	-	-	-	-	-	-	-
US Dollar	0.12	0.22	0.12	0.22	0.13	0.23	0.20	0.30	0.29	0.39	0.55	0.65
Japanese Yen	-0.04	0.06	-0.01	0.09	-0.10	0.10	-0.10	0.10	-0.05	0.15	0.05	0.25

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	180.06	0.13	0.78	1.00	1.72	2.81
Corporates(£)	305.09	0.52	0.50	3.94	1.44	12.79
Corporates($)	256.96	0.09	0.36	2.59	0.36	2.59
Corporates(€)	216.42	0.03	0.37	1.75	0.26	7.18
Eurozone Sov(€)	231.25	0.00	0.03	4.32	-0.04	13.13
Gilts(£)	294.13	0.84	0.66	2.97	2.57	14.42
Global Inflation-Lkd	247.36	0.14	-0.06	-1.39	2.96	-1.54
Markit iBoxx £ Non-Gilts	304.25	0.51	0.45	3.67	1.56	12.50
Overall ($)	228.54	0.08	0.11	1.95	0.11	1.95
Overall(£)	294.40	0.73	0.59	3.19	2.26	13.80
Overall(€)	225.97	0.02	0.14	3.42	0.11	10.89
Treasuries ($)	218.74	0.09	-0.04	1.71	-0.04	1.71
FTSE						
Sterling Corporate (£)	116.20	-0.04	-	-	0.26	6.98
Euro Corporate (€)	111.36	0.03	-	-	0.44	5.39
Euro Emerging Mkts (€)	1059.45	-13.30	-	-	-0.73	10.93
Eurozone Govt Bond	118.93	-0.33	-	-	-0.07	10.15

CREDIT INDICES	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	279.40	13.06	37.15	-	280.16	242.25
Europe 5Y	61.59	3.77	8.65	-	61.59	52.94
Japan 5Y	48.31	-0.82	-4.52	-	59.45	48.09
Senior Financials 5Y	75.31	4.57	13.03	-	75.31	62.28
Markit CDX						
Emerging Markets 5Y	298.20	0.63	4.30	0.00	321.49	292.82
Nth Amer High Yld 5Y	334.44	5.27	5.27	0.00	350.24	329.17
Nth Amer Inv Grade 5Y	61.47	0.84	0.87	0.00	64.60	60.22
Nth AmerHiVol 5Y	0.00	0.00	0.00	0.00	100.00	100.00

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	Apr 17	Day Chng	Prev	52 wk high	52 wk low
VIX	13.89	1.29	12.60	31.06	10.28
VXD	14.27	1.46	12.81	23.19	7.04
VXN	16.03	1.53	14.50	31.17	9.66
VDAX	15.81	-0.83	16.64	-	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility. ‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	10/18	3.25	104.84	1.81	0.00	0.02	0.01	-1.49
	04/25	3.25	107.88	2.36	-0.02	-0.02	-0.03	-1.69
Austria	10/18	1.15	104.28	0.07	-0.02	0.00	0.01	-0.70
	10/24	1.65	113.40	0.22	0.00	-0.08	-0.10	0.00
Belgium	06/18	0.75	102.06	0.09	0.01	0.00	-0.04	-0.91
	06/25	0.80	104.29	0.37	0.03	-0.05	-0.04	0.00
Canada	05/17	0.25	99.19	0.65	0.06	0.11	0.20	0.00
	06/25	2.25	107.66	1.43	0.06	0.06	0.13	0.00
Denmark	11/16	2.50	104.69	-0.47	0.00	0.00	0.00	0.00
	11/25	1.75	116.43	0.18	-0.01	-0.07	-0.06	0.00
Finland	09/18	1.13	104.32	0.14	-0.01	0.00	0.04	-0.57
	07/25	4.00	138.30	0.20	0.01	-0.09	-0.11	-1.77
France	11/16	0.25	100.68	-0.17	0.00	0.00	0.00	0.00
	11/19	0.50	102.51	-0.05	0.00	0.00	0.00	0.00
	05/25	0.50	101.30	0.37	0.01	-0.07	-0.07	0.00
	05/45	3.25	159.15	0.97	0.00	-0.13	-0.08	-2.04
Germany	06/16	0.25	100.58	-0.26	0.00	0.00	0.00	0.00
	10/19	0.25	101.95	-0.18	0.00	0.00	0.00	0.00
	02/25	0.50	104.12	0.08	-0.01	-0.08	-0.10	0.00
	08/46	2.50	158.71	0.48	-0.02	-0.16	-0.15	-1.93
Greece	07/17	3.38	64.21	26.51	0.06	6.62	5.01	0.00
	02/25	3.00	64.47	6.63	0.00	0.00	0.00	0.00
Ireland	10/17	5.50	114.08	-0.13	0.00	0.00	0.00	0.00
	03/25	5.40	144.89	0.69	0.04	-0.02	-0.09	-2.33
Italy	05/17	1.15	101.97	0.20	0.03	0.03	-0.03	0.00
	12/19	1.05	101.78	0.66	0.06	0.14	0.10	0.00
	06/25	1.50	100.27	1.48	0.09	0.20	0.26	0.00
	09/46	3.25	119.79	2.37	0.09	0.21	0.26	0.00
Japan	04/17	0.10	100.19	0.01	-0.01	0.00	0.00	0.00
	05/20	0.05	99.85	0.08	-0.01	-0.03	0.00	0.00
	03/25	0.40	100.89	0.31	-0.03	-0.03	-0.02	0.00
	03/45	1.50	104.63	1.29	-0.04	-0.08	-0.01	0.00
Netherlands	04/17	0.50	101.40	-0.21	0.00	0.00	0.00	0.00
	07/25	0.25	100.23	0.23	0.00	-0.09	0.00	0.00
New Zealand	-	-	-	-	-	-	-	-
	12/17	6.00	107.15	3.16	0.00	0.06	0.06	-0.99
Norway	05/17	4.25	107.15	0.77	0.00	0.02	0.05	-0.92
	03/24	3.00	113.86	1.34	0.00	0.00	0.01	-1.50
Portugal	02/16	6.40	105.25	-0.03	0.00	0.00	0.00	0.00
	10/25	2.88	108.25	2.00	0.13	0.38	0.35	0.00
Spain	10/17	0.50	100.71	0.22	0.03	0.04	0.01	0.00
	04/25	1.60	101.56	1.43	0.11	0.20	0.26	0.00
Sweden	08/17	3.75	109.50	-0.34	0.00	0.00	0.00	0.00
	05/25	2.50	122.55	0.23	-0.03	-0.13	-0.19	0.00
Switzerland	10/16	2.00	104.24	-0.84	0.00	0.00	0.00	0.00
	07/25	1.50	117.35	-0.17	0.00	0.00	0.00	0.00
United Kingdom	07/18	1.25	101.39	0.82	-0.02	0.02	0.05	-0.84
	07/20	2.00	104.09	1.19	-0.02	0.00	0.05	0.00
	09/25	2.00	102.79	1.71	-0.02	0.00	0.00	0.00
	01/45	3.50	124.97	2.33	-0.01	0.00	0.03	0.00
United States	03/17	0.50	99.97	0.52	0.02	-0.04	0.00	0.00
	03/20	1.38	100.24	1.32	0.02	-0.07	0.00	0.00
	02/25	2.00	101.02	1.89	-0.01	-0.06	-0.05	0.00
	02/45	2.50	98.85	2.56	-0.02	-0.03	0.05	0.00

Data provided by SIX Financial Information & Tullett Prebon Information

GILTS: UK CASH MARKET

Apr 17	Price £	Red Yield	Change in Yield Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
Tr 2pc '16	101.21	0.40	0.00	0.00	11.11	-39.39	102.28	101.21	0.32
Tr 1.75pc '17	102.24	0.47	0.00	6.82	14.63	-54.37	102.68	101.07	0.29
Tr 5pc '18	112.36	0.66	-1.49	3.13	6.45	-53.19	113.65	111.68	0.35
Tr 4.5pc '19	113.74	0.89	-1.11	1.14	4.71	-48.26	115.07	111.17	0.36
Tr 4.75pc '20	117.44	1.07	-0.93	0.00	4.90	-45.13	119.04	113.53	0.33
Tr 8pc '21	139.90	1.23	-0.81	0.82	6.03	-43.32	142.92	135.65	0.24
Tr 4pc '22	117.67	1.31	-0.76	0.00	4.80	-43.78	119.85	110.38	0.38
Tr 5pc '25	131.10	1.59	-0.63	0.00	3.92	-42.18	134.70	119.37	0.35
Tr 4.25pc '27	127.63	1.80	-0.55	0.00	3.45	-39.80	131.90	112.61	0.31
Tr 4.25pc '32	131.30	2.07	-0.48	-0.48	1.97	-35.71	136.85	112.95	0.35
Tr 4.25pc '36	134.08	2.20	-0.45	-0.45	1.38	-34.13	140.37	113.08	0.26
Tr 4.5pc '42	145.18	2.29	0.00	0.00	0.88	-32.45	153.16	118.96	0.26
Tr 3.75pc '52	136.09	2.30	-0.43	-0.43	0.00	-32.35	145.21	106.18	0.22
Tr 4pc '60	148.38	2.27	-0.44	-0.44	-0.44	-32.44	159.23	113.50	0.21

xd Ex dividend. Closing mid-prices are shown in pounds per £ 100 nominal of stock. Red yield: Gross redemption yield. This table shows the gilts benchmarks & the non-rump undated stocks.

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change
Crude Oil†	Apr	56.05	-0.50
Brent Crude Oil‡		63.70	-0.02
RBOB Gasoline†	Apr	1.94	0.00
Heating Oil†	Apr	1.79	0.00
Natural Gas†	Apr	2.64	-0.05
Ethanol♦		-	-
Uranium	Apr	39.00	0.00
Carbon Emissions		-	-
Diesel	Jun	121.25	0.00
Unleaded	May	-	-
Base Metals (♠ LME 3 Months)			
Aluminium		1819.00	-4.00
Aluminium Alloy		1820.00	0.00
Copper		6079.00	-8.50
Lead		2033.00	-12.50
Nickel		12600.00	-195.00
Tin		15255.00	455.00
Zinc		2212.00	-18.50
Precious Metals (PM London Fix)			
Gold		1203.35	-1.00
Silver (US cents)		1636.00	-11.00
Platinum		1161.00	-6.00
Palladium		777.00	1.00
Bulk Commodities			
Iron Ore (Platts)		51.50	0.75
Iron Ore (The Steel Index)		50.70	0.70
GlobalCOAL RB Index		60.00	0.00
Baltic Dry Index		597.00	4.00

Agricultural & Cattle Futures		Price*	Change
Corn♦	May	379.75	3.25
Wheat♦	May	493.25	-1.50
Soybeans♦	May	967.75	2.75
Soybeans Meal♦	May	314.70	2.60
Cocoa (ICE Liffe)✠	May	1938.00	-26.00
Cocoa (ICE US)♥	May	2840.00	-8.00
Coffee(Robusta)✠	May	1799.00	3.00
Coffee (Arabica)♥	May	139.20	0.40
White Sugar✠		372.70	-5.00
Sugar 11♥		13.15	-0.28
Cotton♥	May	63.46	-0.83
Orange Juice♥	May	115.50	2.00
Palm Oil♣	May	591.00	5.25
Live Cattle♣	Apr	157.80	-3.20
Feeder Cattle♣	Apr	213.03	-2.98
Lean Hogs♣	May	70.53	-0.13

	Apr 16	% Chg Month	% Chg Year
S&P GSCI Spt	431.71	6.36	-
DJ UBS Spot	101.82	3.06	-
R/J CRB TR	224.51	6.58	-27.68
Rogers RICIX TR	2694.50	-	-
M Lynch MLCX Ex. Rtn	322.63	9.28	-31.07
UBS Bberg CMCI TR	15.92	5.22	-26.02
LEBA EUA Carbon	7.06	-5.74	23.00
LEBA CER Carbon	0.50	21.95	316.67
LEBA UK Power	1822.00	-25.69	7.49

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price Apr 16	Yield Apr 16	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 21	134.94	-0.864	-0.890	0.30	5.18	74005.50	7
Fr 2.25%' 20	119.48	-1.296	-1.307	1.47	19.98	228788.08	15
Swe 0.25%' 22	111.76	-1.286	-1.270	-0.22	29.96	234369.75	6
UK 2.5%' 16	326.41	-1.748	-1.750	-0.03	7.90	506047.57	24
UK 2.5%' 24	348.40	-1.056	-1.079	0.53	6.82	506047.57	24
UK 2%' 35	239.00	-0.949	-0.969	0.78	9.08	506047.57	24
US 0.625%' 21	105.67	-0.274	-0.232	1.00	35.84	1119457.42	36
US 3.625%' 28	142.45	0.293	-0.232	1.17	16.78	1119457.42	36

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	2.36	2.28	0.48	Italy	1.48	1.40	-0.41
Austria	0.22	0.14	-1.66	Japan	0.31	0.23	-1.58
Belgium	0.37	0.29	-1.52	Netherlands	0.23	0.15	-1.66
Canada	1.43	1.35	-0.45	Norway	1.34	1.26	-0.55
Denmark	0.18	0.10	-1.71	Portugal	2.00	1.92	0.11
Finland	0.20	0.12	-1.68	Spain	1.43	1.35	-0.45
France	0.37	0.29	-1.52	Switzerland	-0.17	-0.25	-2.06
Germany	0.08	0.00	-1.81	United Kingdom	1.71	1.63	-0.18
Greece	6.63	6.55	4.74	United States	1.89	1.81	0.00
Ireland	0.69	0.61	-1.20				

Data provided by SIX Financial Information & Tullett Prebon Information

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Apr 17	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	99.57	0.02	2354.83	0.23	2.86	0.82
2 5 - 10 Years	182.67	0.11	3237.08	0.68	8.69	1.41
3 10 - 15 Years	213.68	0.17	3835.88	1.13	15.03	1.79
4 5 - 15 Years	189.55	0.12	3378.43	0.76	10.37	1.51
5 Over 15 Years	311.32	0.11	4409.90	2.37	25.07	2.24
7 All stocks	177.19	0.09	3250.79	1.24	12.98	1.99

Index Linked	Apr 17	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	313.42	0.07	0.74	-2.47	2370.11	0.74	-0.75
2 Over 5 years	591.47	0.05	5.88	19.72	4343.58	5.94	20.75
3 5-15 years	441.37	0.13	2.58	5.64	3328.80	2.78	6.94
4 Over 15 years	730.63	0.02	7.30	27.00	5271.11	7.30	27.86
5 All stocks	545.85	0.05	5.33	17.18	4056.92	5.38	18.29

Yield Indices	Apr 17	Apr 16	Yr ago		Apr 17	Apr 16	Yr ago
5 Yrs	1.07	1.08	1.80	20 Yrs	2.22	2.23	3.33
10 Yrs	1.68	1.69	2.73	45 Yrs	2.30	2.30	3.39
15 Yrs	2.04	2.05	3.15				

Real yield	inflation 0% Apr 17	Dur yrs	Previous	Yr ago	inflation 5% Apr 17	Dur yrs	Previous	Yr ago
Up to 5 yrs	-1.10	3.04	-1.15	-1.34	-1.77	3.06	-1.93	-2.05
Over 5 yrs	-0.94	23.92	-0.94	-0.12	-0.98	24.02	-0.99	-0.17
5-15 yrs	-1.00	9.86	-0.98	-0.30	-1.10	9.88	-1.14	-0.45
Over 15 yrs	-0.94	28.55	-0.94	-0.08	-0.97	28.63	-0.97	-0.11
All stocks	-0.95	20.81	-0.94	-0.14	-1.00	20.98	-1.00	-0.19

See the FTSE website for more details: http://www.ftse.com/products/indices/gilts

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FINANCIAL TIMES SHARE SERVICE

Main Market

	Price	+/-Chg	52 Week High	Low	Yld	P/E	Vol 000s
Aerospace & Defence							
AvonRub	774.00	-1.00	825.00	603.00	0.66	18.30	63.5
BAE Sys	513.00	-3.00	549.00	374.30	3.96	22.01	7875.5
Chemring	214.50	-1.00	249.00	181.50	2.89	-306.43	104.6
Cobham	299.30	-4.90	349.10	258.30	3.32	115.83	3285.7
Meggitt	540.50	-6.00	593.50	421.70	2.41	24.89	1940.8
RollsRoyce	978.50	-1.50	1094	777.00	2.29	-250.90	6920.5
Senior	339.20	-0.90	361.70	248.90	1.55	22.52	753.5
UltraElc	1721	4.00	1909.1	1646	2.48	57.94	152.0
Automobiles & Parts							
FordMtr $	15.75	-0.19	18.12	13.26	3.05	20.84	12203.4
GKN	361.30	-9.30	468.00	281.10	2.24	35.32	7444.5
Banks							
ANZ A$	35.60	-0.42	37.25	30.47	7.26	13.33	5862.5
BcoSant	478.00	-10.50	758.00	416.37	9.29	13.39	1306.2
BankAm $	15.57	-0.23	18.21	14.37	0.74	45.33	43763.4
BnkGeorgia	2040	20.00	2795.69	1675	3.31	8.91	186.6
BankIre €	0.36	-0.01	0.39	0.07	-	13.56	36466.3
BkNvaS C$	65.44	-0.29	74.93	60.75	3.81	11.98	93.2
Barclays	255.30	-5.05	269.94	201.75	2.55	-347.35	41253.3
CanImp C$	95.52	-0.66	107.37	88.04	4.03	13.72	44.8
HSBC	600.00	-6.80	637.00	550.67	5.24	13.02	29369.5
LloydsBkg	78.75	-1.15	81.82	70.72	-	40.41	148660.2
RylBkC C$	80.66	-0.58	83.87	71.74	3.47	13.41	149.0
RBS	349.20	-5.30	414.00	294.70	-	-698.40	10573.6
StandCh	1050	-14.00	1355.5	867.50	5.26	15.50	4889.1
.7.375%Pf	120.75	-	128.00	108.50	6.11	-	51.1
.8.25%Pf	134.75	-	139.75	124.50	6.12	-	61.6
IntsDom C$	55.54	-0.49	58.20	49.67	3.25	13.93	191.2
VirginMoney	398.00	0.30	432.93	278.00	-	-995.00	1137.2
Westpac A$	38.90	-0.37	40.07	31.33	7.18	16.02	4400.7
Basic Resource (Ex Mining)							
Ferrexpo	68.25	-2.00	156.40	47.60	6.20	3.50	862.8
IntferMet	3.48	-	10.50	2.65	-	-2.12	105.8
Mondi	1358	-25.00	1417	919.00	2.27	18.02	2273.3
Vale BRL	17.94	-0.12	33.25	17.17	13.28	47.99	428.7
Chemicals							
Alent	376.20	-3.00	406.20	294.56	2.42	22.15	116.7
Bayer €	134.45	-4.50	146.45	92.08	1.68	30.12	3052.7
Carclo	146.75	8.75	189.75	80.00	1.81	-5.19	524.9
Croda	2848	-25.00	2942	1965	2.28	23.48	344.3
Elementis	317.00	1.50	318.52	225.50	1.64	13.12	2013.2
Porvair	305.00	-4.25	331.75	237.53	0.98	21.53	34.3
Syngent SFr	328.10	-15.10	350.30	273.20	3.16	20.38	829.8
Synthomer	326.80	-1.30	336.80	176.64	2.02	24.71	497.1
Victrex	1998	-3.00	2202.55	1536	2.39	21.19	167.6

	Price	+/-Chg	52 Week High	Low	Yld	P/E	Vol 000s
El Oro	50.00	-	78.00	40.00	7.40	-4.28	165.0
GuinPeat	23.00	0.50	36.63	19.00	-	34.85	11471.1
Hargr Lans	1209	-28.00	1300	827.00	1.85	35.50	739.4
HBM Hlth SFr	105.50	-0.50	113.30	71.85	-	2.68	16.2
HenderGp	284.00	-11.50	303.30	180.10	2.98	25.59	3482.2
ICAP	541.00	-9.50	560.00	338.70	4.07	31.49	887.8
Indvardn SKr	164.10	-2.80	169.30	111.40	3.39	6.53	266.8
ICG	534.50	-14.00	554.50	361.70	3.80	15.00	743.2
IPF♦	475.60	-9.90	636.50	412.00	2.04	16.19	366.0
Investec	591.00	-6.50	609.00	477.20	3.37	18.63	996.0
Jupiter♦■	431.00	-8.10	446.80	313.70	2.97	15.87	1374.1
Liontrust	267.50	-1.00	306.25	208.00	1.12	23.67	22.9
Man	208.50	-1.10	217.80	87.45	2.86	15.84	7270.2
NB GFRIF♦	96.15	0.05	100.40	93.75	4.02	24.07	22786.4
Paragon	428.50	-3.40	444.40	313.70	1.82	13.76	350.4
Providnt	2893	-25.00	2970	1903.8	3.05	23.23	220.5
RathbnBr	2110	-5.00	2280	1774	2.37	28.01	18.6
Record	35.00	0.25	38.50	28.38	4.29	13.97	52.6
S & U	2015	-6.00	2255.5	1700	2.83	13.06	1.1
Schroder♦	3259	-83.00	3412	2086	2.03	22.04	407.7
..N/V♦	2500	-50.00	2600	1692	2.64	16.90	22.8
SVG Cap	506.00	-7.50	518.50	226.00	-	12.63	290.4
TullettPre	361.60	-9.30	393.10	234.40	4.66	32.43	412.3
Tungsten	183.00	-7.50	409.75	136.70	-	-9.06	612.4
WlkrCrip	46.00	-	53.60	37.50	3.41	8.53	35.4
Food & Beverages							
AngloEst	582.25	2.25	725.00	539.00	0.50	3.13	0.4
AscBrFd☒	2906	-52.00	3293	2407	1.20	30.13	1076.8
Barr(AG)	644.00	-8.50	699.36	548.00	1.76	24.13	25.4
Britvic	750.00	-13.00	788.00	600.72	2.55	20.69	238.5
C&C €	3.82	0.01	5.32	3.16	2.89	12.80	126.2
CarrsGroup	160.00	1.13	166.00	136.00	2.13	12.29	45.2
Coca-Cola H	1358	-24.00	1530	1051	2.02	21.70	505.7
Cranswk	1448	-10.00	1499	1148.42	2.29	17.23	28.5
Dairy Cr	455.60	-4.10	520.50	367.39	4.82	19.84	181.2
Devro♦	287.75	-1.25	316.00	203.88	3.06	109.79	15.0
Glanbia €♦	17.30	-0.35	18.00	10.40	0.65	32.56	28.1
Grncore	334.50	-5.20	342.00	228.50	1.52	29.02	647.3
HiltonFd	448.25	0.75	534.50	342.25	2.88	17.95	3.6
Kerry €♦	68.34	-0.36	69.24	49.30	0.87	23.26	82.6
Nestle SFr☒	75.95	-0.65	77.00	64.15	2.61	18.24	12847.9
PremFds	45.50	-	64.85	26.13	-	-2.11	1335.9
REA	306.00	-	488.87	293.00	2.45	9.21	0.2
SABMill☒	3623.5	-12.50	3857	2999	1.78	26.14	2382.3
StckSpirit	196.50	1.50	316.50	185.25	0.49	14.39	389.8
Tate&Lyl	653.00	1.50	744.50	551.50	4.36	16.75	1180.7
TongtHu R	129.61	0.11	174.93	118.00	2.33	11.97	90.8
Unilever	2992	-19.00	3087	2397	2.92	21.54	4112.2
..NV €	41.37	-0.64	42.75	28.81	2.93	21.45	17.2
Health Care Equip & Services							
Bioquell	124.00	0.50	129.50	80.00	2.66	-51.84	20.3
ConstMed	905.50	-2.00	1045	650.00	2.08	19.89	32.8
GNStre kr	144.70	-2.50	164.10	122.50	0.63	27.66	657.0
Optos	342.00	-	351.00	147.25	-	48.96	33.7
UDGHlthC	493.70	-6.30	510.00	315.20	1.52	13.97	167.4
House, Leisure & Pers Goods							
AGARmst	92.00	-0.25	185.00	85.88	-	638.89	38.2
BarrttDev	531.00	1.50	558.70	323.50	1.94	14.06	3930.2
Bellway	2011	15.00	2130	1333	2.59	10.39	430.2
Berkeley	2661	-12.00	2759.37	2033	7.14	10.17	400.6
BovisHme♦	962.00	-1.50	1021	717.43	2.23	12.31	241.0
CrestNic	437.00	-7.50	466.00	291.98	2.43	11.30	286.6
GamesWk	503.88	13.88	683.50	487.25	7.14	22.90	9.9
Gleeson	392.50	-2.50	410.17	322.35	1.53	12.27	47.6
Headlam	437.63	-0.88	494.00	390.00	3.61	22.34	0.3
McBride	97.00	1.00	107.00	74.00	-	-10.40	34.2
Persimn	1733	-	1795	1176	-	14.24	1049.0
Philips €☒	26.44	-0.42	27.68	20.69	-	102.24	3571.5
PZCusns	356.10	-1.50	392.10	289.76	2.18	16.67	205.7
ReckittB☒♦	5940	-61.00	6120	4735	2.31	26.10	1402.7
Redrow♦	365.20	-6.80	382.75	224.00	0.82	9.52	351.8
TaylorWm♦	160.50	-2.10	166.80	101.20	0.44	13.96	18321.0
TedBaker	2785	-11.00	2909.48	1634.12	1.25	38.42	41.9
Industrial Engineering							
Bodycote♦■	696.50	-20.50	797.59	542.50	1.97	16.69	213.2
Castings	388.00	-17.00	525.00	373.00	3.34	10.27	8.4
Fenner	211.25	-4.75	421.00	180.50	5.84	18.12	390.0
Goodwin	2477.5	-5.00	4149	2120	1.71	9.93	1.7
Hill&Sm	690.00	-7.00	705.00	495.00	2.38	19.92	20.0
IMI♦	1250	-20.00	1613	1108	2.89	18.22	716.8
MelroseInd♦	271.20	-2.80	319.63	252.54	3.10	32.29	2301.8
Renold	63.50	-1.25	69.00	49.00	-	-19.16	78.2
Rotork♦	2534	-109.00	2890	2146	1.94	21.38	321.2
Severfd	65.75	0.75	72.05	52.60	-	149.09	95.6
SKF SKr	208.80	-16.80	231.70	134.80	2.79	19.51	10573.2

	Price	+/-Chg	52 Week High	Low	Yld	P/E	Vol 000s
Spirax-S	3471	-43.00	3594	2548	1.74	26.29	167.4
Tex	93.50	2.00	101.50	77.50	4.46	8.46	5.3
Trifast	103.00	-2.00	134.00	88.00	1.36	17.67	151.5
Vitec♦	654.00	-10.00	670.00	539.00	3.58	22.27	3.5
Weir	1872	-30.00	2848	1574	2.30	12.20	1174.3
Industrial General							
BritPoly♦	695.50	3.50	712.68	565.00	2.16	12.09	6.7
JardnMt $☒♦	61.76	-0.86	67.88	57.00	2.19	13.97	90.9
Jard Str $☒♦	34.75	-0.61	38.10	32.33	0.72	11.98	221.0
Macfrlne	44.25	0.75	49.50	34.00	3.62	11.69	101.7
REXAM	580.00	-1.50	603.00	424.60	3.27	16.16	1175.5
RPC	612.50	-0.50	672.90	488.20	2.32	23.43	393.4
Smith DS♦	368.40	-4.60	383.50	231.82	2.81	20.61	1801.9
Smiths♦	1115	-19.00	1363	1006	3.61	19.78	861.5
SmurfKap €♦	28.96	0.62	30.31	14.78	1.72	26.21	670.7
Vesuvius♦	449.40	-10.60	530.00	388.80	3.39	12.25	222.3
Industrial Transportation							
BBA Aviat♦	342.00	-1.50	362.10	293.70	2.93	15.65	694.6
Braemar	430.00	-9.88	557.23	390.00	6.28	31.94	7.1
Clarkson	2216	6.00	2750	1835	2.62	24.69	9.9
Eurotunnl €	13.82	-0.12	14.05	8.62	1.17	121.38	1285.1
Fisher J♦	1320	5.00	1468.28	1003	1.56	16.67	23.8
Flybe Grp	58.50	-0.25	147.91	55.68	-	-4.28	508.3
Goldenpt	120.75	0.25	394.00	118.00	-	-3.67	1.6
OceanWil	925.00	-	1290	835.00	3.79	9.39	2.4
RoyalMail	445.60	-3.50	577.00	388.00	2.98	24.48	1965.9
UK Mail	512.50	-1.50	639.43	380.00	4.16	27.09	0.5
Insurance							
Admiral	1591	-14.00	1621	1175.33	3.02	15.47	647.5
Amlin■	472.40	-11.40	533.08	418.20	5.57	10.14	1372.9
Aviva♦	543.00	-7.00	578.68	458.20	2.81	11.38	11289.2
Beazley	286.90	-2.70	322.33	232.60	3.37	10.71	935.4
Brit Plc♦■	278.00	-0.30	309.08	209.00	2.25	7.99	1969.0
CatlinGp	705.50	-7.00	723.50	479.50	4.77	9.90	1887.8
Chesnar♦	328.00	-	364.75	287.00	5.50	14.86	462.0
DirectLine	324.50	-4.30	343.30	235.40	3.94	13.63	6148.3
Eccles prf	140.25	-	142.25	122.00	6.15	-	67.2
Hansard	90.00	-1.00	105.31	80.00	9.33	14.90	30.7
Hiscox	843.00	-4.50	890.00	615.50	3.13	11.49	515.5
JardineL♦	1025	-10.00	1093	815.00	2.70	21.44	80.3
Lancashire	648.00	-8.50	705.50	506.00	1.48	8.73	375.1
Leg&Gen	278.10	-3.60	296.02	203.70	3.52	16.82	18535.7
NovaeGp	733.00	2.50	750.00	495.50	3.15	9.37	48.0
Old Mut	236.40	-3.90	20210	163.80	3.57	18.91	13688.6
PermTSB	0.06	-	0.10	0.05	-	-0.20	0.0
PhoenixGrp♦	840.00	-9.00	935.00	614.85	6.36	8.70	461.5
Prudntl☒♦	1636.5	-28.00	1761.5	1287	2.14	18.85	3865.3
RSA Ins♦	425.60	-8.50	500.50	92.70	-	-29.56	2310.7
SagicFin♦	66.50	2.50	76.50	55.00	3.86	6.25	12.0
StJmsPl♦	927.50	-31.00	998.00	637.00	2.00	25.80	2107.1
Stan Life♦	461.40	-5.70	487.40	354.96	4.29	24.05	4846.1
Media							
4imprint♦	1051	-5.00	1090	610.50	1.80	28.18	1.8
Blmsbury	163.63	3.38	190.00	140.50	3.56	16.58	19.7
Centaur	75.50	0.50	78.25	55.75	3.53	-2.94	12.3
ChimeCm	288.00	3.00	377.00	239.00	2.55	-92.10	44.8
Creston	118.50	-	131.95	102.05	3.29	9.91	5.0
DlyMailA	914.00	-4.00	940.00	699.00	2.30	15.18	771.0
HaynesPb	121.50	-	202.13	110.00	6.17	14.03	0.2
ITE Grp	183.75	-6.00	248.30	125.00	3.92	13.36	280.2
ITV	264.00	-2.10	272.50	167.10	1.44	22.89	12749.4
JohnstnP	147.75	-0.50	175.00	2.90	-	-4.01	53.2
News Corp A $	15.72	-0.17	18.41	14.28	-	35.36	1467.4
NewsCpB $	15.55	-0.16	17.82	14.09	-	34.97	510.9
Pearson♦	1355	-15.00	1517.42	1044	3.62	45.32	4882.5
Quarto	192.50	-15.00	213.35	136.66	4.35	6.64	16.1
Reed Els☒	1130	-12.00	1199	851.53	2.21	26.58	4314.7
ReedElsNV €	22.85	-0.43	24.17	14.51	2.48	25.37	1693.8
STV Grp♦	360.00	-	393.75	322.00	1.11	9.58	10.9
ThmReut C$☒	50.28	-0.50	53.00	37.24	3.08	18.26	37.0
UTV Med	179.50	-0.50	249.75	162.50	3.94	12.49	103.7
WPP☒	1543	-28.00	1616	1091	2.22	20.52	4047.0
Mining							
Acacia	283.90	-1.80	318.90	191.70	0.77	20.31	459.4
AngloAmer☒♦	1010.5	-28.50	1678.5	923.00	5.42	-8.05	8294.7
AngloPacif	85.75	-1.00	193.75	74.75	11.90	-2.04	164.8
AnGoldA R	138.22	1.99	200.05	88.36	-	-83.01	1064.0
Antofagasta	732.00	-15.00	861.50	620.00	8.53	24.47	2687.7
..5%Pf	0.60	-	0.60	0.60	-	-	-
AquarsPl	8.85	0.15	41.75	8.61	-	-3.76	433.6
AsiaResM	28.38	1.88	210.00	3.61	-	-0.72	1150.3
Barrick C$	15.65	0.25	21.14	11.67	1.50	-5.34	102.3
BHP Bltn	1446	-23.50	2102.53	1247.5	4.75	9.54	7790.3
BisichMg	62.50	-	113.00	62.00	6.58	-9.03	1.5

	Price	+/-Chg	52 Week High	Low	Yld	P/E	Vol 000s
EVRAZ	191.70	-13.70	209.90	83.75	-	-3.83	2019.5
FstQuant♦	849.00	-45.00	1512	581.50	0.99	9.51	8.4
Fresnillo	728.50	-15.00	1037	630.50	-	77.19	1647.5
GemDmnd	139.75	0.50	223.00	135.25	-	9.13	948.7
Harmony R	22.99	-0.11	38.50	16.60	-	-8.06	1308.3
Hochschild	85.75	-0.50	181.91	60.97	-	-7.12	96.7
Kenmr	3.30	-0.07	17.05	2.18	-	-2.33	4608.0
Lonmin	140.10	2.70	297.50	105.70	-	-6.88	1913.0
Petra	160.10	-4.90	220.87	147.90	-	19.36	2523.8
Petropvlsk	5.49	-0.04	85.31	4.21	-	0.15	5504.7
PolymtIntl	561.00	-11.00	634.00	315.18	1.84	-16.66	572.8
RndgldRs♦	5045	-35.00	5752.1	3638	0.63	31.00	312.1
RioTinto☒	2801	-41.00	3530.5	2600	4.68	12.44	5038.2
Troy Res A$	0.46	-0.01	1.32	0.35	-	-1.04	384.8
VedantaRs	551.50	-22.50	1201	353.21	7.17	298.59	1402.7
Oil & Gas							
Afren	3.11	0.04	166.60	2.65	-	0.10	4877.6
Aminex	1.85	0.05	3.17	0.64	-	-2.02	3007.0
BG☒	1192.5	2.50	1420	780.55	1.62	-60.37	16019.3
BP☒	479.35	5.90	526.80	364.40	5.29	36.57	49262.3
Cadogan	8.50	-	12.44	8.36	-	-2.07	12.3
CairnEng	178.60	-	210.70	141.00	-	-4.19	1721.3
Cape	254.75	-0.75	327.25	177.00	5.50	13.70	104.3
DragnOil♦	632.50	-4.50	643.50	447.50	3.83	7.46	390.1
Endeav Int' $	0.02	-	1.96	0.02	-	0.00	0.4
EnQuest	47.25	-1.50	145.40	21.50	-	4.12	4352.2
Exillon	110.25	-1.75	175.57	105.00	-	6.36	75.0
ExxonMb $☒	86.80	-0.93	104.76	82.68	2.98	11.91	6036.3
FastnetO&G	2.58	-0.23	11.85	1.97	-	-4.14	2509.0
GenelEgy	574.00	-2.00	1084	452.75	-	-7.92	1198.2
GeoPark $	4.78	-0.07	11.00	3.60	-	7.16	4.4
GreatEEgy	78.50	-1.50	136.00	75.00	-	9.06	20.9
GrnDnGas	360.00	-7.50	585.00	320.65	-	-9.76	0.4
GulfKeyst	38.75	-1.25	143.00	32.00	-	-16.30	4526.3
HellenPet €	3.65	-0.05	6.71	3.40	-	-4.35	108.3
Hunting	615.00	13.50	918.83	383.90	3.10	21.40	2748.6
ImpOil C$☒	54.40	-0.50	57.96	44.08	0.97	12.08	41.2
JKX	29.00	-	63.00	10.23	-	11.91	55.0
Lamprell	131.00	3.00	178.00	93.50	-	6.92	261.9
Lukoil RUB☒	2613.7	33.70	3297.7	1815.6	-	7.24	1263.6
Nostrum	623.00	14.00	825.00	370.00	3.60	12.25	413.9
OphirEgy	160.80	0.50	270.20	112.70	-	26.41	3870.5
Petrofac♦	1014	-10.00	1483	594.00	4.17	45.32	1329.1
PremOil	171.80	-3.20	358.60	119.60	3.14	-6.65	4859.8
RylDShlA☒	2089	-20.00	2475.5	1916.79	5.91	13.82	5222.8
..B	2120.5	-24.00	2613.5	1984.5	5.67	14.03	8064.8
Schlmbrg $☒	92.79	0.90	118.76	75.60	1.65	22.44	11046.2
SEPLAT	145.00	6.00	270.00	97.50	-	4.29	332.3
Soco Int	181.80	-0.80	453.60	134.00	20.80	13.03	571.5
TrnCan C$☒♦	55.74	-0.13	63.86	49.30	3.49	22.44	61.1
Tullow	398.00	-4.00	918.78	278.10	3.21	-3.63	7594.1

	Price	+/-Chg	52 Week High	Low	Yld	P/E	Vol 000s
SEGRO♦	429.50	-3.00	447.70	330.90	3.45	4.67	1980.4
Shaftbry	840.50	-8.00	882.00	632.17	1.52	5.11	347.3
Town Ctr	308.75	-4.75	324.65	230.00	3.38	5.78	7.3
Wkspace	878.50	-1.50	916.00	542.00	1.21	4.26	130.4
Real Estate Inv & Services							
Cap&Count	403.60	-1.60	421.40	313.00	0.37	7.34	761.2
Cardiff	1045	-	1099.5	900.00	1.31	4.42	0.2
CLS	1890	-10.00	1915	1270	-	4.21	1.7
Daejan	5795	-40.00	5995	4650	1.71	5.06	0.2
DvlptSec	247.75	-2.25	255.00	179.00	3.44	15.83	35.6
Grainger	211.60	-0.90	235.20	167.80	1.05	11.79	641.8
HelclBar	389.25	3.25	410.00	320.00	1.73	6.84	39.0
HK Land $♦	7.74	0.09	8.30	6.46	2.23	14.30	5777.2
Lon&Assc#	41.50	2.00	52.00	36.50	0.30	71.92	23.8
MacauPrp	218.00	2.13	270.00	206.25	-	11.47	542.2
Mntview	10675	-50.00	12900	6900	1.87	12.10	0.1
Q'tainEst	96.00	-0.25	105.37	75.00	-	21.83	318.7
RavenRuss	50.75	1.00	78.00	37.25	-	-6.42	197.6
RavenR Prf	137.25	-	156.00	101.50	8.74	-	19.1
RavenR Wrt	28.25	-	51.89	25.00	-	-	3.0
Safestre	279.00	-8.00	304.75	184.25	2.17	12.14	254.4
Savills♦■	813.00	0.50	854.50	567.52	1.32	17.95	243.5
SchroderRE	61.50	-0.75	63.00	51.25	4.03	4.89	874.0
Smart(J)	96.00	-	104.00	86.00	3.08	39.88	11.5
StModwen	448.60	0.60	492.10	324.59	0.92	8.69	1055.7
UNITE Gp	590.00	8.50	609.00	388.30	0.92	11.29	955.5
Urban&C	275.00	0.50	280.00	215.00	-	8.96	99.5
Retailers							
AA	390.00	-	434.50	225.50	-	18.17	975.0
AO World	185.70	1.80	336.00	149.60	-	-281.36	96.7
AshleyL	30.13	0.38	32.38	24.50	7.01	13.29	52.3
Brown N	327.40	-2.40	534.50	282.50	4.54	12.36	431.2
Caffyns	530.00	-5.00	670.00	480.00	3.40	9.27	2.0
Card Factor	316.80	-5.20	327.00	195.50	-	120.00	112.8
Dairy Fm $♦	9.30	-0.15	10.90	8.49	2.37	25.76	68.6
Debenhm	87.60	2.70	89.00	56.85	3.88	11.91	11118.8
Dignity	1998	18.00	2040	1291	1.00	-19.22	21.3
DixonsCar	441.30	-0.70	470.00	319.20	1.19	51.92	2208.8
Dunelm	867.00	-4.00	989.22	745.97	2.31	18.46	90.5
Findel	228.00	-0.75	310.00	188.41	-	-17.24	13.0
Halfords	449.90	-4.80	515.00	417.10	3.18	14.66	296.5
Inchcape	832.00	-1.50	848.00	589.50	2.16	21.34	682.6
JDSportsF	562.00	-0.50	566.00	355.94	1.21	22.88	106.6
Lookers	151.00	-3.00	165.00	117.50	1.77	12.85	505.4
Marks&Sp	564.00	-4.00	673.63	380.80	3.01	18.32	5518.8
Morrison	197.70	-3.50	215.20	150.60	6.79	-14.31	8173.6
MossBros	104.75	1.00	126.18	77.50	4.77	32.22	22.9
Next■	7220	-65.00	7967	6130	1.98	17.63	398.1
Ocado	348.90	-17.10	452.40	216.80	-	293.69	1182.0
Pendragn	39.50	-0.25	41.50	27.00	1.52	11.55	105.9
Photo-Me♦	148.00	-	155.26	107.85	2.67	21.46	141.1

	Price	+/-Chg	52 Week High	Low	Yld	P/E	Vol 000s
Latchways	755.00	-	1156	705.01	5.25	19.02	1.8
Lavendon♦	174.75	-0.75	244.50	155.50	2.17	21.38	84.1
MngCnslt	15.88	-	30.00	13.75	5.36	9.12	22.8
MearsGp	427.00	-2.50	529.00	354.75	2.13	19.42	9.1
MenziesJ	376.50	-3.50	703.00	306.25	7.14	16.63	64.7
MichaelPge	541.50	-3.00	560.50	358.70	1.94	37.91	541.5
MITIE	292.80	-1.50	337.80	263.90	3.76	84.43	1436.8
PayPoint	882.50	-8.00	1211	809.39	4.14	16.16	13.3
PremFarn	188.40	-1.90	236.90	147.00	5.78	13.80	453.8
Rentokil♦	137.50	0.10	143.00	109.80	1.73	19.78	2282.7
Ricardo	802.00	36.50	813.00	597.70	1.90	21.83	171.3
RbrtWlts	400.00	4.00	405.00	270.00	1.35	45.55	99.0
RPS	239.10	-3.60	314.70	181.50	3.30	15.81	3158.3
Shanks	107.00	-0.25	112.00	84.50	3.22	-24.32	248.5
SIG	203.50	-0.10	210.00	143.40	1.88	36.46	1848.9
SpeedyHr	71.25	-0.75	80.50	50.75	0.90	77.11	228.0
St Ives♦	168.00	-3.00	225.00	156.68	4.26	48.23	382.0
TribalGrp	148.50	-2.50	200.00	141.10	1.14	-18.02	13.5
Vp	650.00	-4.00	690.00	539.00	2.22	15.76	10.2
Watermn	70.50	1.25	76.00	50.00	1.42	53.82	21.3
Wolseley♦	4049	-33.00	4242	2966	2.04	36.56	780.4
Tech - Hardware							
ARM Hldgs	1127	-10.00	1211	778.50	0.54	62.71	3765.4
CSR	876.50	-0.50	890.00	506.00	1.05	24.78	318.1
Laird	352.50	6.00	364.40	259.45	3.45	18.95	530.0
Pace	335.20	-6.10	418.50	284.20	1.11	11.46	792.3
SpirentCM♦	91.00	0.25	111.23	65.95	2.59	42.40	226.1
Tech - Software & Services							
Anite	84.25	-0.75	98.75	69.25	2.26	26.37	650.8
AVEVA	1600	-22.00	2460	1183.9	1.72	24.42	216.2
Computcnt	683.50	0.50	802.40	651.67	3.02	15.07	131.3
DRS Data	13.25	-	27.00	12.10	3.02	-5.99	50.0
Elecdata	70.00	-	86.50	64.00	2.86	22.15	0.9
MicroFoc	1188	-23.00	1246.6	756.50	2.55	22.02	181.4
NCC Grp	199.00	-	234.50	169.80	1.76	23.73	68.2
RM	144.00	-1.00	174.00	120.00	2.62	11.05	21.1
Sage	469.30	-10.00	497.00	346.70	2.64	27.54	2484.7
SDL	437.25	-7.50	465.00	284.25	-	53.91	143.9
Telecity♦	918.00	-4.50	1000.00	626.00	1.25	31.27	459.8
TriadGp	11.63	-	19.00	7.00	-	5.24	28.6
Telecommunications							
BT☒	450.00	-2.00	471.45	351.90	2.28	18.35	15481.9
Colt Grp	142.60	-1.50	155.80	113.10	-	-58.32	112.5
Inmarsat	951.50	-15.00	982.00	653.00	3.20	20.71	704.2
KCOM Gp	94.50	-	102.41	78.50	5.16	12.88	237.4
TalkTalk	346.20	-2.00	367.80	261.00	3.47	64.36	610.3
TelePlus	803.50	18.50	1656	725.50	4.58	20.74	1829.2
Tobacco							
BrAmTob☒♦	3724	-18.00	3894	3303	3.89	22.36	3894.8

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Investment Companies

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Week Ahead
FINANCIAL TIMES

Corporate diary April 20 - April 26

TODAY 20

EARNINGS

IBM	Q1	$2.86	($2.46)
Morgan Stanley	Q1	$0.78	($0.68)

Trading and sales updates: L'Oréal, Rio Tinto
Shareholder meetings: HSBC, Hutchison Whampoa

TUESDAY 21

Credit Suisse presents first-quarter results, the last set of numbers under outgoing CEO Brady Dougan. All eyes will be peeled for hints about the bank's direction under Tidjane Thiam, who takes the top job in June.

The investment bank's earnings will be particularly scrutinised, since it's seen as most vulnerable to cuts, though the performance of asset management and private banking, which makes up about half the bank's revenue, is a better predictor of the group's future earnings power.

Attention will also focus on the quarter's asset reduction, after the February 12 announcement that Credit Suisse would cut an extra SFr50bn-SFr70bn from its balance sheet in 2015. Progress on asset reduction would reassure investors that the bank can cope with a new Swiss rule limiting leverage, something that has been a constant concern.

Overall, analysts expect earnings per share of about SFr0.71, versus the SFr0.47 in the first quarter of 2014. Credit Suisse's shares have risen more than 40 per cent from mid-January, as investors first gave the thumbs up to its accelerated deleveraging plan and then to Mr Thiam's appointment. *Laura Noonan*

Never mind the £4.2bn spent on Premier League rights — investors are warming once again to **Sky**. Shares in the satellite broadcaster, which announces quarterly results, have risen more than 10 per cent since the Premier League auction, outpacing those of rival BT.

Analysts will be watching to see whether Sky can maintain the strong growth in the last three months of 2014, the first period incorporating its European operations.

The number of retail subscribers rose 1.8 per cent quarter-on-quarter in the UK, 5.5 per cent in Germany and Austria, and 0.6 per cent in Italy.

These results, covering the three months to March, are the last financial period unaffected by the unseasonal price rise in the UK. Sky is putting up the average prices for pay-TV customers by more than £2.50 a month, in part to pay for the increased cost of programming.

This month France's Vivendi, which is working out how to turn its pile of cash into a coherent media group, denied that it would bid for Sky. *Henry Mance*

EARNINGS

Arm Holdings	Q1	6.76p	(5.60p)
Assoc Brit Foods	H1	46.08p	(45.80p)
Credit Suisse	Q1	SFr0.71	(SFr0.47)
Sky	Q3	14.32p	(14.80p)
Yahoo	Q1	$0.18	($0.38)

Trading and sales updates: BHP Billiton, Informa, Pets at Home, Publicis, Polyus Gold, Schneider

Diary commentary from FT reporters. Data, unless otherwise stated, from Thomson Reuters. Company announcements, collated by Thomson Streetevents, are of information publically available before last week. Results forecasts, from Thomson I/B/E/S, are for fully diluted, post-tax EPS in local currency for the stated fiscal period. The comparable period of the previous year is bracketed. Non-UK reporting periods are broken by quarter: Q1, Q2, Q3, Q4. UK periods are designated: Q1, H1 (first half), Q3 and FY (full year).

THOMSON REUTERS

Asim Hafeez/Bloomberg

Bank shareholders gather for HSBC and Barclays AGMs

HSBC will be back in the spotlight this week when shareholders gather at the Queen Elizabeth II Conference Centre in London on **Friday** for the bank's annual meeting.

After leading board members — including chief executive Stuart Gulliver and chairman Douglas Flint — were given a rough ride by parliamentary committees earlier this year over allegations that HSBC's Swiss private bank helped rich clients to evade tax, conduct and controls will be in focus.

Some shareholders are expected to vote against re-election of some board members, notably Rona Fairhead, who has exceeded the 10-year limit to be considered independent.

Ms Fairhead was accused of being either "incredibly naive or totally incompetent" by the public accounts committee for not doing more to spot and stamp out wrongdoing at HSBC's Swiss unit. Pirc, a shareholder advisory agency, has called for shareholders to vote against her re-election, but others such as ISS have not.

On **Thursday** the shareholders of **Barclays** will have their opportunity to say goodbye to Sir David Walker, who is handling over the reins as chairman of the bank to John McFarlane from Aviva.

Having cut the overall bonus pool last year by more than a fifth and almost a quarter at the investment bank, Barclays hopes to avoid the big protest vote over pay that it suffered last year. *Martin Arnold*

WEDNESDAY 22

Tesco is set to round off a disastrous year with a multibillion-pound loss before tax, when it reports its annual results.

Analysts forecast that the statutory pre-tax loss could be as much as £5bn after a raft of writedowns and charges including about £4bn for impairing the value of its stores and jettisoning development projects.

The large statutory pre-tax loss, expected by analysts, caps a terrible year for Tesco, during which it revealed that it had overstated its half-year profit by £263m and ousted its chief executive Philip Clarke, replacing him with Dave Lewis.

It warned in December that trading profit — profit before exceptional items, goodwill amortisation and property profits — would be no more than £1.4bn in the year to the end of February, against £3.3bn in the year earlier. *Andrea Felsted*

EARNINGS

AT&T	Q1	$0.63	($0.71)
Boeing	Q1	$1.84	($1.76)
eBay	Q1	$0.70	($0.70)
Facebook	Q1	$0.40	($0.34)
McDonald's	Q1	$1.07	($1.21)
Tesco	FY	10.13p	(32.05p)

Trading and sales update: Heineken, Reed Elsevier, Roche. **Shareholder meetings:** L'Oréal, Rank Group

THURSDAY 23

PepsiCo will continue to look to its robust snacks division and non-carbonated drinks to support flagging sales of fizzy beverages when it reports first-quarter earnings.

Health-conscious consumers are turning away from sugary soda across the industry, pinching bigger rival Coca-Cola as well. But Doritos crisps, Gatorade and Tropicana juices should drive gains.

The snacks division generates about half of revenues, and controls nearly two-thirds of the US salty snacks market, making the US snacks division the company's most profitable segment.

Last quarter the company reported a 25 per cent drop in profits, on the back of currency volatility, and said the strong dollar would hit earnings per share and revenues by about 7 per cent. Largest international exposure is to Russia, which accounts for 7 per cent of revenues.

But investors reacted warmly to Pepsi's plans to return up to $9bn to shareholders this year through a mix of dividends and share buybacks.

Wall Street analysts expect Pepsi to report earnings of 79 cents a share on $12.21bn in revenues. *Neil Munshi*

EARNINGS

Caterpillar	Q1	$1.35	($1.61)
Dow Chemical	Q1	$0.76	($0.79)
General Motors	Q1	$0.96	($0.29)
Google	Q1	$6.63	($6.27)
KKR & Co	Q1	$0.55	($0.82)
Microsoft	Q3	$0.51	($0.68)
PepsiCo	Q1	$0.79	($0.83)
Procter & Gamble	Q3	$0.93	($1.04)
Starbucks	Q1	$0.33	($0.28)

Trading and sales updates: Gecina, Meggitt, Pernod-Ricard, Renault, Valeo, William Hill, WPP
Shareholder meetings: Barclays, Meggitt, SThree

FRIDAY 24

EARNINGS

AstraZeneca	Q1	$1.10	($1.17)
Electrolux	Q1	SKr0.98	(SKr1.55)
Mazda Motors	FY	Y281.89	(Y227.00)
Mitsubishi Motors	FY	Y119.66	(Y156.60)
Volvo	Q1	SKr1.24	(SKr0.69)

Trading and sales update: Reckitt Benckiser
Shareholder meetings: AstraZeneca, HSBC, Noble Corp, Pearson

ECONOMIC OUTLOOK

Confirmation of pick-up across Europe sought

Improvement in Europe is set to be the main theme of the week's data releases. Monetary easing, a weaker currency and lower energy costs are all factors that favour a more bullish outlook, especially in the core eurozone countries.

Initial readings for April's purchasing managers' indices for France, Germany and the euro bloc are released on Thursday, while additional German confidence data are out tomorrow and Friday in the form of the Zew and Ifo surveys respectively. Also on Friday the finance ministers of the euro countries will come together for the monthly eurogroup meeting. The main topic of discussion, and thorn in the side of any European recovery, will remain the situation in Greece.

The eurozone PMIs should show an improvement across the board for April. The composite PMI is forecast to hit 54.4 from 54 previously. Services and manufacturing are also expected to shows gains, hitting 54.5 and 52.6 respectively, all well above the 50 level that indicates expansion.

PMIs for Germany are also expected to push into stronger territory in April, with manufacturing hitting 53 from 52.8 previously and services up to 55.5 from 55.4.

The data for France are less positive but a slowing in the rate of contraction is expected in manufacturing, with the PMI moving to 49.3 from 48.8 previously. Services are likely to remain firm at 52.4.

Germany's Zew survey of economic sentiment for April is released tomorrow. Conditions in Europe's largest economy are balanced by recent equity market highs but offset by declines in industrial orders, and as a result Zew current conditions are expected to remain fixed with marginal improvement in overall economic sentiment.

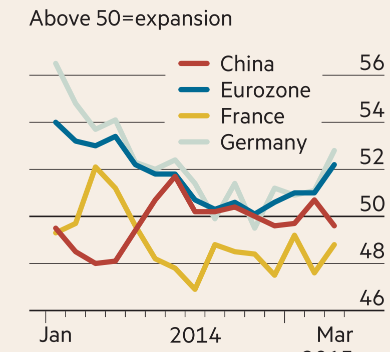
The minutes from the April meeting of the Bank of England's Monetary Policy Committee are out on Wednesday. A change to any of the BoE's policies is deemed highly unlikely and indeed policy remained unchanged at the last meeting.

However, chief economist and MPC member Andy Haldane is of the opinion that the BoE's next move could be a cut rather than a rise, so any further discussion of this point will prove interesting.

The HSBC Markit manufacturing PMI for China is released on Thursday. An increase in the rate of contraction is expected, with the PMI moving from 49.6 to 49.4 during the month of April. *Andrew Whiffin*

Manufacturing PMIs

Above 50=expansion



Source: Thomson Reuters Datastream

4CAST ECONOMIC CALENDAR

COUNTRY	For	Indicator	Units*	Mkt*	Prev*
MONDAY					
Germany	Mar	PPI	1	0.2	0.1
Germany	Mar	PPI	2	-1.6	-2.1
UK	Apr	Rightmove house prices	2	n/a	5.4
TUESDAY					
Germany	Apr	ZEW (current cond.)		55	55.1
Germany	Apr	ZEW (econ. sent.)		55	54.8
WEDNESDAY					
Eurozone	Apr	Flash consumer sent.		-2.4	-3.7
Japan	Mar	Customs cleared trade	3	44.6	-425
US	Mar	Existing home sales	m	5.01	4.88
US	Feb	FHFA house price index	1	0.6	0.3
THURSDAY					
China	Apr	Flash Markit PMI mfg		49.4	49.6
Eurozone	Apr	Flash comp. PMI		54.4	54
Eurozone	Apr	Flash manuf. PMI		52.6	52.2
Eurozone	Apr	Flash services PMI		54.5	54.2
France	Apr	Flash manuf. PMI		49.3	48.8
France	Apr	Flash services PMI		52.4	52.4
Germany	Apr	Flash manuf. PMI		53	52.8
Germany	Apr	Flash services PMI		55.5	55.4
UK	Mar	Public borrowing	3	7	6.9
UK	Mar	Retail sales	1	0.4	0.7
UK	Mar	Retail sales	2	5.5	5.7
US	Apr	Flash manuf. PMI		56	55.7
US	Week	Initial claims	5	n/a	294
US	Mar	New home sales	5	509	539
FRIDAY					
Germany	Apr	IFO business climate		108.3	107.9
Germany	Apr	IFO current cond.		112.3	112
Germany	Apr	IFO expectations		104.5	103.9
Japan	Feb	All industry act. index	1	-1	1.9
Japan	Mar	CSPI	2	3.3	3.3
US	Mar	Durable goods orders	1	0.6	-1.4
US	Mar	Durables ex transport	1	0.3	-0.6

Mkt* = market consensus estimates. Prev*= previous actual
Units*; **1** = % change on previous period, **2** = % change on same period in previous year, **3** = national currency bn, **4** = annualised quarterly % change, **5** = 000s, NSA=not seasonally adjusted, SA=seasonally adjusted.
See more at www.ft.com/economic-calendar

Energy

Monday April 20 2015

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Volatile climate puts billions at risk

Christopher Adams finds a sector preparing for a painful adjustment

Ask anyone running a global energy company how far the oil price will fall and you will probably get a wry smile in response.

Little wonder when the market has turned on its head. Opec's unexpected decision in November not to cut output in the face of a US supply glut and weakening demand in China triggered a crash nobody predicted.

Saudi Arabia, Opec's de facto leader, has said it will no longer play its traditional role of swing producer. "Whether it goes down to $20, $40, $50, $60, it is irrelevant," said the kingdom's oil minister Ali al-Naimi in December. The effect of those words has been to remove any implicit price floor. Since then, internationally traded Brent crude has hit a six-year low of $45 a barrel. It is down 50 per cent from last summer's peak and within touching distance of the financial crisis nadir of 2008. A return to $100-plus levels looks remote.

The repercussions of the slide are only now starting to be felt. A wave of corporate takeovers could reshape an energy industry battered by the price fall. Royal Dutch Shell's agreed £55bn offer this month for UK-based BG Group, the biggest energy deal in more than a decade, may usher in further consolidation.

The winners are likely to be the world's big consuming economies: the US, Europe and China. Households will enjoy greater purchasing power and the fall could boost overall growth in the global economy. But the regions that produce oil will be hit hard.

Countries that rely heavily on oil export revenues, those with limited foreign exchange reserves and sizeable populations — Iran, Iraq and Venezuela, for example — will struggle. Russia's position looks increasingly precarious, with its vast energy sector also affected by western sanctions because of the conflict in Ukraine. Thousands of workers linked to the Canadian oil sands industry, one of the highest cost producing regions, have lost their jobs. Cities such as Calgary in Canada and Aberdeen, home to businesses operating in Britain's North Sea, face a bleak 2015.

Bob Dudley, chief executive of BP, has likened the collapse in prices to the slump that crippled the industry in 1986. Then, Opec decided to switch from a policy focusing on prices to one focusing on market share, in effect a decision to allow crude prices to fall.

"This is a supply-led crisis," Mr Dudley says, warning that companies should be prepared for several years of lower prices.

Indeed, rising stocks of US crude, the product of America's "shale revolution", have almost filled tanks in the country's storage hub in Cushing, Oklahoma. And, even as the smaller, independent producers which have led that revolution cut sharply the number of drilling rigs used in exploration, there is no sign of a reversal in US production. It continues to glide higher.

The world's biggest oil companies are reacting. Exploration budgets for this year are expected to be cut by 30 per cent, according to Wood Mackenzie, the energy consultancy, as the so-called supermajors axe capital spending.

Emma Wild, head of upstream oil advisory at KPMG, says shareholders are demanding the majors become "leaner and more efficient" after years of soaring costs have eroded returns on capital. Now, following the fall in prices, as much as $1tn of investment is at risk, says Goldman Sachs.

The oilfield services industry is bearing the brunt of a wave of cost-cutting, as rig contracts for costly deepwater exploration are pared back or abandoned. Rates for offshore rigs have tumbled 20 per cent from year-ago levels.

Except for Shell, which is pressing ahead in Alaska, drilling plans for the Arctic, the next big oil frontier, have largely been put on hold. But the scale of the cuts varies widely, with some explorers such as Tullow slashing their

Continued on page 2

Pipeline: US crude has almost filled tanks in the country's Cushing storage hub in Oklahoma — Daniel Acker/Bloomberg

Inside

Renewables ride wave of success as prices fall and spending jumps

Market share Contracts in oil-rich regions show solar and wind can compete, reports *Pilita Clark*

The past five months have been full of heartening news for the renewable energy industry, which has grown used to the opposite.

Instead of the subsidy cuts, bankruptcies, trade rows and investment dips that dominated the sector three or four years ago, there have been record levels of installations, surprising price falls and a welcome surge in spending.

Global investment in renewable energy bounced up for the first time in three years last year to $270bn, a 17 per cent rise from 2013, the UN Environment Programme reported last month.

A $75bn boom in solar power installed in China and Japan drove part of the surge, along with a record amount of offshore wind farm investment in Europe.

But the more interesting aspect of the $270bn spent last year, that does not include investment in large hydropower plants, is the record amount of so-called modern renewables it helped fund.

At least 95 gigawatts of wind and solar generating capacity was installed last year, far more than the 70GW built in 2011, the only year when the dollar amount invested was higher — at $279bn.

That also illustrates the rate at which costs are falling, especially for solar panel technology, a shift some green power companies claim will cause a profoundly disruptive shift.

"Solar and wind are about to gobble up market share around the world," says Thierry Lepercq, chairman of Solairedirect, a fast-growing French company that has 57 solar parks built or under construction around the world. "We're generating power at lower prices than other energy sources in Chile, India and South Africa," he says.

Among the industry milestones of the past five months was a contract that Dubai's state utility awarded for a solar power plant to the ACWA group from oil-rich Saudi Arabia that will sell electricity for less than 6 US cents per kilowatt hour. That is at least 2 to 3 cents cheaper than generation from gas in Dubai, according to Adnan Amin, head of the International Renewable Energy Agency. Solar panel prices have dropped 75 per cent since 2009 and the total installed costs of big, utility-scale solar plants fell by as much as 65 per cent between 2010 and 2014, according to the agency.

Those lower prices are one reason the city of Georgetown in Texas, also famed for its oil wealth, declared in March it was going to become the first city in the state to get all its electricity from solar and wind farms by 2017.

Jim Briggs, interim city manager, says: "Georgetown Utility Services isn't required to buy solar or other renewables. We did it because it will save on electricity costs and decrease water usage [used in conventional power generation]."

When the industry's history is written, today's chapter will be called "renewable energy reaches adulthood", says Neil Auerbach, chief executive of the US private equity group Hudson Clean Energy Partners. "It's a young adult, but it is still an adult," he adds, explaining the sector is now less reliant on the government subsidies that propelled its early growth.

"Also, the size and quality of the biggest players is more meaningful," he says, pointing to the larger companies emerging in the sector. They include the US groups SunEdison, a solar and wind park developer, and First Solar, a solar-panel maker, both of which have a market value of more than $6bn.

> 'Solar and wind are about to gobble up market share around the world'

Still, the recent fall in oil prices has dented some forms of renewable energy. One of the UK's biggest biofuel plants, the Ensus factory on Teesside, was temporarily closed in February amid a sharp fall in biofuel prices, which mirror the oil price.

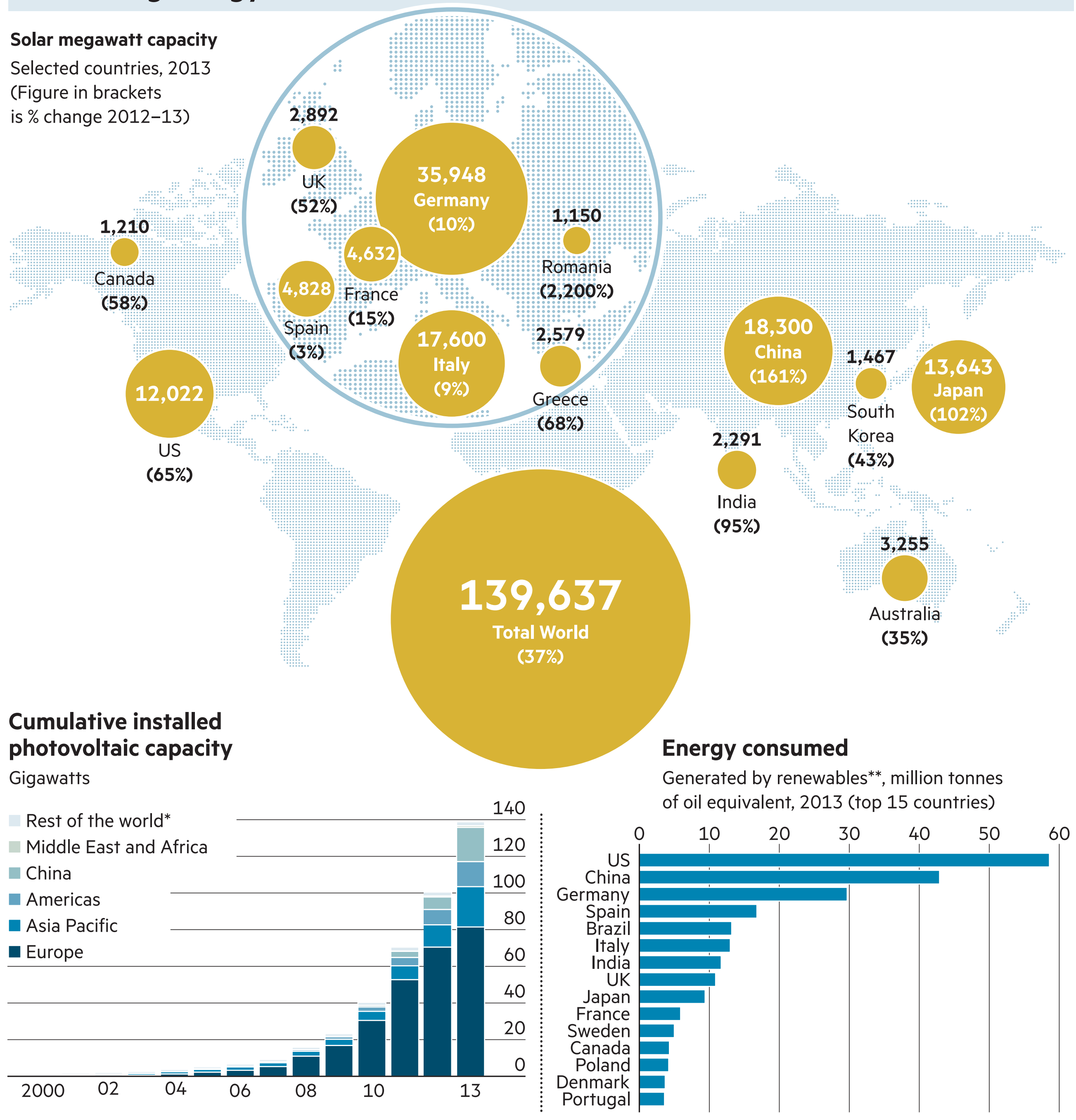
But oil accounts for a small percentage of electricity generation in most countries, and is only about 1 per cent in nations such as the US, so it is not clear that lower crude prices will have a big impact on renewable power generation.

Even so, the sector's recent growth has to be seen in context.

In the past seven years, renewable power (not including large hydroelectric plants) as a percentage of global electricity generation has only grown from 5 to 9 per cent, according to the Bloomberg New Energy Finance research group.

At current rates of growth, it will take until 2030 for renewables to reach 20 per cent of global power generation.

Consuming energy



FT graphic Sources: Epia; BP * Methodology used for RoW data collection changed in 2012 ** Renewables includes solar, wind, geothermal, biomass, biofuels and waste

Offshore fields use power sent from land

Extraction costs

Extracting and delivering oil and gas offshore uses a lot of fuel, but some companies are working to change that, writes *Michael Kavanagh*

Offshore oil and gas fields supply much of the world's energy, but it is not always appreciated that the very platforms extracting and delivering supplies to shore are themselves considerable consumers of fuel.

Larger platforms deployed in the North Sea can typically consume power at a rate of 50 to 100 megawatts across a large range of processes — including oil separation, gas compression, wastewater treatment, gas lifting, and the ultimate export of oil and gas to shore.

One study suggests that more than a quarter of Norway's total carbon dioxide emissions could be attributed to North Sea oil and gas platforms operating in its waters at the beginning of the decade.

However, a combination of environmental lobbying, engineering problem-solving and economic calculations have prompted the oil-rich nation to raise its game.

Statoil, Norway's oil industry champion, announced last month the award of a $155m contract to engineering company ABB for initial work on the first stages of a land-based power supply for the development of the Johan Sverdrup field — the biggest North Sea oil discovery of recent years.

In total, partners backing the scheme are budgeting more than five times that amount to send power from Norway's grid system, which is normally fully supplied by the country's abundant hydroelectricity, via a high-voltage, direct current cable to help fuel oil and gas extraction from 2019 onwards.

A 200km long submarine cable should have the capacity also to power adjacent fields scheduled for development from 2022, in line with commitments demanded by a coalition of Norwegian political parties last year to secure public backing for the launch of production from Johan Sverdrup.

The four platforms that make up the first phase of the development are planned to be entirely powered from shore by a 100MW HVDC link, with planned production of 550,000-650,000 barrels of oil equivalent per day expected to account for a big jump in the country's offshore production.

Other hydrocarbon operators appear to be learning that tapping grid supplies can make reputational as well as economic sense — particularly when these supplies are derived in part from renewable or low-carbon sources not always fully exploited by other industries.

The first power-from-shore oilfield cable was installed in Saudi Arabia's Abu Safah development 50km into the Persian Gulf in 2003. Since then, two Norwegian platforms — Statoil's Troll and BP's Valhall facilities — have also tapped electricity from land rather than rely solely on gas turbines on board.

But in spite of growing pressure from environmental lobbies and economic self-interest, such energy-saving measures remain the exception rather than the rule.

Pressure builds on US to ease crude export ban

Oil

Lobbyists warn of glut in domestic supplies and falling prices, says *Gregory Meyer*

The US may be the world's largest crude oil importer, but one of its main energy policy tussles is over oil exports.

Liberalising the 40-year-old US ban on exporting most domestic crude oil has become the subject of congressional hearings, intense lobbying and a multitude of studies.

The debate seems curious, because the US still has gross crude oil imports of 7m barrels a day. But the volume has been dropping thanks to resurgent domestic production. Supplies of "light," low-sulphur domestic oil from US shale formations have replaced most imports of similar quality.

Opponents mobilising against the ban warn these supplies will saturate the market, depress domestic prices and slow down further output gains.

The ban was passed in 1975 after the Arab oil embargo crippled US fuel supplies. At the time, economic policy included price controls, and crude export restrictions were needed to effect these controls, according to Columbia University's Center on Global Energy Policy. The ban restricts exports to everywhere but Canada, with few exceptions. For decades, the law was little more than cocktail-party trivia for policy specialists. US crude oil imports climbed steadily along with domestic fuel consumption to a peak above 10m b/d in 2005, making the question of exports irrelevant.

But it has come back into focus as oil supplies climb from states such as North Dakota and Texas. Last year, US production rose by 1.2m b/d, the largest increase in records dating to 1900. Commercial crude inventories this spring were at their highest for 84 years.

"For most of the past 40 years, the thought of exporting crude oil was not an issue. Folks had pretty much forgotten that when we lifted oil price controls in the early 1980s, we forgot to lift the ban," says Robert McNally, president of The Rapidan Group, a Washington-based consultancy.

The ballooning supply is reflected in prices. US benchmark West Texas Intermediate has fallen to a discount to Brent, the global marker. Keeping the export ban will widen this discount and result in "lower US crude oil production and higher prices for global crude oil and gasoline", says IHS, a consultancy, in a report sponsored by energy companies.

The refining industry, the primary consumer of crude, says there is no glut and is investing $5bn to process an additional 730,000 b/d of light crude by 2016. Opening the floodgates for US crude exports would be unfair, it argues, unless Congress also repeals a 1920 law requiring all tanker and barge shipments to go on US-flagged, US-built vessels. The law, called the Jones Act, makes it more expensive to ship Texas oil to Pennsylvania than to some foreign refineries.

US refiners may freely export petroleum products, such as petrol and diesel, and are doing so in record volumes. They have enjoyed fat profit margins by refining relatively cheap US crude feedstock into products sold at global prices.

The White House cracked open the door to additional exports last year, when the Department of Commerce said crude oil processed through a simple distillation tower would qualify as having been refined enough for export. In practical terms, the announcement applied to condensate, a type of ultra-light oil prevalent in the Eagle Ford shale of Texas. Since then, several companies have received classifications to export processed condensate, says Jake Dweck, a partner at Sutherland, the law firm. Others are relying on these classifications as a precedent to export condensate without explicit approval.

Jake Dweck: Several companies have received classifications to export processed condensate

Exports of processed condensate so far have been modest. Yet even these volumes were sufficient to help drive Brent oil below $75 a barrel in the second half of 2014, says Colin Fenton, managing partner at Blacklight Research and a fellow at Columbia.

The White House has some scope to open the door wider under current law. One option is to allow US producers to swap their light oil with equal amounts of heavy oil from Mexico. In late March, according to Reuters, Mexico's state oil company Pemex was awaiting approval to swap some oil. A group of senators has urged the White House to go further and allow unfettered exports to Mexico.

Ending the ban would take an act of Congress. But lawmakers are sensitive to being blamed for higher petrol prices.

Volatile climate puts billions at risk

Continued from page 1

expenditure by up to 80 per cent to conserve cash, while Shell is keeping this year's spending broadly steady.

Arthur Hanna, managing director for energy at Accenture, says that much of the industry had expected a market reaction to Opec's November decision but that many executives were surprised by the rapidity of the price fall.

"That has led to a lot of activity to shore up balance sheets for 2015. The supermajors are looking at ways shared service co-operation could be extended: financial services, pay, treasury and back office functions."

At the same time, billions of dollars in assets have been put up for sale amid expectations of a wave of mergers and acquisitions. Some operators are looking to reduce their exposure to higher-cost producing regions, such as the North Sea and the Gulf of Mexico.

So far, not withstanding the BG takeover, predictions of transformative deals comparable to the takeovers of the 1990s that created today's supermajors look overheated. Mergers on this scale are risky and — some argue — rarely deliver promised savings.

More likely is consolidation among smaller US explorers that borrowed heavily to finance their part in the shale boom and which now find themselves struggling to meet bond repayments or are at risk of breaching covenants on reserves-based bank loans. Others remain insulated from the effects of the slide in crude, having hedged their output well into this year by selling barrels in advance at higher prices. But those hedges will soon expire.

When they do, the high levels of borrowing could have a decisive influence on what happens next. The stock of debt issued by oil and other energy companies accounts for some 15 per cent of leading US investment grade and high-yield debt indices. Yields on the bonds issued by riskier energy groups, which move inversely to prices, have risen as oil prices fell, reflecting investors' concerns. That pushes up companies' refinancing costs. All this could spur consolidation. Sarah Wiggins, a M&A partner at Linklaters, estimates there is $180bn of "dry powder" ready to be deployed by funds including distressed equity investors. Ms Wiggins points to $8bn recently raised in the bond markets by ExxonMobil, the US giant, which has said it is "alert" to bolt-on acquisitions.

Other possible buyers include private equity groups such as Carlyle and Blackstone, while Russian billionaire Mikhail Fridman has launched a $10bn fund, run by former BP chief executive Lord Browne, to hunt for acquisitions.

However, the fierce cost-cutting and scale of the corporate debt burden is also likely to constrain production. The reason US oil and gas output has continued to grow is that producers have focused on their most productive and profitable wells. In time, reduced investment and slower growth in output should put a floor under the market.

Standard & Poor's forecasts a recovery for Brent to about $75 a barrel by 2017. By then, say some analysts, it will be the "Lower 48" — the home of US shale — that has turned global swing producer, able to turn on and off the taps to meet demand.

Expect a volatile ride on the way, and a painful adjustment for the industry.

£55bn Royal Dutch Shell's offer for UK-based BG Group

$1tn The amount of investment at risk, according to Goldman Sachs

Oil rout forces companies into radical policy rethink

Liquefied natural gas

Projects under construction and those in low-cost regions are better prospects, reports *Anjli Raval*

Brent crude at half the level of last June has made the production of expensive oil — from the Arctic to Brazil — unattractive. And the liquefied natural gas (LNG) industry could become another casualty.

This is because the LNG market is dominated by long-term contracts whose pricing is linked to oil. Existing projects, many of which came on stream recently to meet Asian demand, have seen lower revenues, while expectations for what can be earned on new projects have been reduced.

The oil rout — prices are hovering at $62 a barrel — has also meant developers of big projects have less money to spend. Energy companies have been forced to retrench, re-evaluating investment plans, reassessing cost structures and cutting expenditure.

Trevor Sikorski of Energy Aspects, a consultancy, says: "Most integrated LNG developers are also oil majors and do not report separate capital expenditure for LNG projects." The companies that are big LNG suppliers, from ExxonMobil to BP and Statoil, have announced cuts totalling $45bn this year — close to a 20 per cent year-on-year reduction.

The timing is not ideal. LNG prices had already fallen as the rise in global energy demand slowed on weaker economic growth and milder weather. At the same time supplies were increasing. By mid-March 2015 spot LNG prices delivered into Asia, for example, had fallen by more than 50 per cent year on year. This has wiped out the price advantage of US LNG projects.

In the next four years about 150bn cubic metres of new LNG supply is expected to come on stream, as a wave of predominantly Australian and US projects under construction become operational, says the Oxford Institute for Energy Studies. This raises the volume of global LNG trade by nearly half.

Jonathan Stern, director of gas research at the Institute, says: "Not only are these new projects coming on to the market in a lower price environment than was expected, but the pace of LNG demand growth, particularly in Asia, appears to be weakening." The drop in the price of crude has only compounded matters.

For showcase LNG projects across the globe, the impact of lower oil prices as well as a drop in gas prices will not be uniform. For those projects that have already been financed Hogan Lovells' energy lawyers, specialists in the area, say banks might sit tight as they await an oil price recovery in the next 18 months. However, if the price looks likely to remain low for longer, restructuring of financing arrangements may be required for some projects.

Gas analysts say projects that are already under construction are likely to continue as planned. By 2018, Australia will see new capacity come online from roughly $180bn in investments, which will result in a 25 per cent increase in global liquefaction capacity, according to Moody's Investors Service. Meanwhile, the US is poised to become a net LNG exporter by the end of this year.

Although much of this LNG supply has buyers already secured, the remaining portion may struggle to find them. Initially destined for Asia, it may be more likely to land in Europe, given the shorter shipping distances. It may also be harder to achieve the expected return on investment.

In the US, those projects expected to be completed on schedule include Cheniere Energy's Sabine Pass terminal on the border between Texas and Louisiana, the Freeport terminal in Texas and the Cameron terminal in Louisiana, according to Boston Consulting Group.

> LNG long-term contracts which have pricing that is linked to oil have been under fire

Moody's says Cheniere Energy's Corpus Christi project will most likely move forward this year, since it is "among the very few projects in advanced development that have secured sufficient commercial or financial backing to begin construction".

Simon Ashby-Rudd, head of oil and gas investment banking at Standard Bank, sees better prospects in low-cost regions such as Mozambique and Papua New Guinea that are still economical in a lower oil price environment. But Dan Tyrer, energy lawyer at Linklaters, stresses that the pool of buyers is limited. "Mozambique is proceeding as planned with final investment decisions expected this year," he says. But "Tanzania, which is geologically similar, may get delayed further".

Projects elsewhere could be deferred or cancelled altogether. Final investment decisions for large, capital-intensive greenfield projects, such as in Australia and Canada, are likely to be put on hold. The Pacific Northwest project in British Columbia is a sign of this.

Moody's says low LNG prices will result in the cancellation of the majority of the nearly 30 liquefaction projects currently proposed in the US, 18 in western Canada, and four in eastern Canada.

Carbon capture
China's interest in innovative scheme grows

Success: Boundary Dam

A lack of early-stage proposals for carbon capture and storage schemes could hamper the rate of uptake of the technology, a key tool for radically reducing industrial emissions.

The number of carbon capture and storage (CCS) schemes doubled in 2014 to 22 globally — 13 in operation and nine in construction — with another 14 projects in advanced planning and 18 in early development, says Brad Page, chief executive of the Global Carbon Capture and Storage Institute.

"While we are seeing projects that should reach the stage of making a financial investment decision in the next 12 months, what we're not seeing is projects coming in at the bottom of the process . . . The pipeline is not full," says Mr Page.

A difficult financial climate and uncertainty about global commitment to addressing climate change have slowed the pipeline of projects after a significant increase in 2014.

CCS schemes, which capture carbon dioxide emissions produced by burning fossil fuels and store them deep underground, are often found in the power sector but are starting to make headway in other heavy emitting sectors, such as steel and cement.

The world's first CCS in iron and steel, backed by a joint venture between the Abu Dhabi National Oil Company (Adnoc) and the Abu Dhabi Future Energy Company, is expected to come online in 2016 in the emirate.

Mr Page says there has also been a lot of interest concerning cement, but no projects are confirmed.

"Without CCS, the cost to avoid a global warming of more than two degrees Celsius would more than double [rising] by 138 per cent," he says.

The US and Canada are leading the world in developing CCS, and are home to the bulk of operational schemes. China and the UK also plan significant projects. "Three and a half years ago, China did not rate a mention in our annual report. In 2014, they've hit number two in the world," says Mr Page. " . . . They are not climate change deniers."

At Boundary Dam, Canada's groundbreaking CCS coal power plant scheme, SaskPower executives attest to the level of Chinese interest.

"We have a Chinese delegation here every two or three weeks," says Mike Monea, president of CCS initiatives at SaskPower, a Canadian utility. "They're watching what's happening at Boundary and learning from us. China is just gathering information right now. When it moves, it will be significant. I think that's where the next projects of size and number will be happening."

The Boundary scheme, the world's first commercial-scale CCS on a coal power plant, has captured an estimated 200,000 tonnes of CO_2 since it opened in October last year.

The captured emissions travel down a 66km pipeline to either an enhanced oil recovery facility for the oilfields, or a saline reservoir 3.2km below the earth's crust for permanent storage.

The company will make a decision in the next 12 months on building two more CCS schemes.

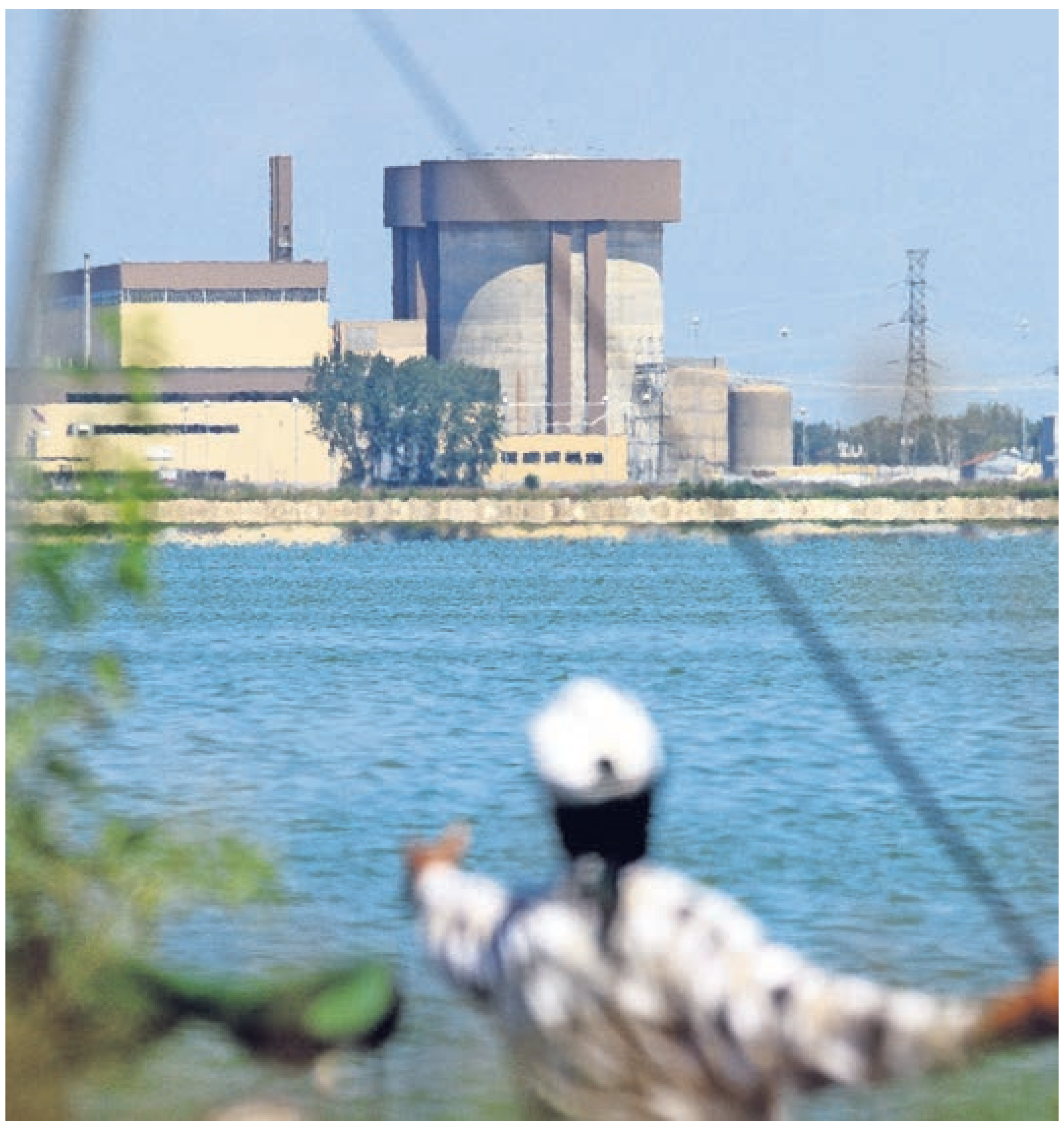
With the engineering experience gained from the first scheme, costs would be reduced by 30 per cent.

Mr Monea says: "We've got all the expertise of building a carbon capture plant — but nobody wants to build one, unless they're forced to".

Naomi Mapstone

Battle lines drawn as Obama moves to cut greenhouse gas emissions

US nuclear The country's largest generator of low-carbon energy fights back, writes *Ed Crooks*



Risky waters: Exelon has warned that five of its reactors in Illinois are at risk of closing
Chuck Berman/Chicago Tribune

Five years ago, the talk was of a renaissance in US nuclear power. Today, the sector is battling to avoid a slide back into the dark ages. Threatened by competition from plants fuelled by cheap natural gas, the nuclear industry is at risk of being forced into further retreat.

Over the past year, the threat to nuclear generation has risen up the agenda for utilities and regulators.

As President Barack Obama's administration moves to cut US greenhouse gas emissions, with detailed regulations of its plan for power generation due in the summer, supporters of nuclear power have become increasingly vocal in urging policy to support the country's largest source of low-carbon generation.

The argument is far from over, however. Proposals for regulatory changes that would help nuclear generators have been attacked as a "bailout" for the industry at the expense of consumers.

The industry argues that nuclear power is an essential part of the energy mix that will fade away without greater financial support, but regulators and politicians are yet to be convinced.

For now, the decline of nuclear in US electricity supply is moving slowly. It accounted for 20 per cent of the country's power generation in 2009, and will be about 19 per cent this year, according to the government's Energy Information Administration.

This year is even expected to bring some positive news for the industry with the start-up of Watts Bar 2, scheduled to be the first nuclear plant to come on line in the US since 1996. The project was launched by the Tennessee Valley Authority in the 1970s, and construction was stopped in 1985 but restarted in 2007. Its completion will add about 1.1 gigawatts to US nuclear capacity of about 104GW.

However, the long-delayed arrival of Watts Bar 2 is being offset by shutdowns of other US reactors. Duke Energy's Crystal River plant in Florida and Edison International's two reactors at San Onofre in California were shut down after they were hit by technical problems that would have required heavy expenditure to put right.

There have also been a couple of plants closed as a result not of technical problems, but the economics of their local markets. Dominion's Kewaunee plant in Wisconsin was shut down in May 2013, and Entergy's Vermont Yankee ceased operating at the end of last year.

Exelon, the Chicago-based electricity group that has the largest number of nuclear plants in the US, has warned that five of its reactors at three plants in Illinois are uneconomic, and are at risk of closing, unless the structure of the power market that includes the state is reformed.

Some US regulators have begun moves in that direction. Late last year the Federal Energy Regulatory Commission held workshops to discuss reforms to market design and pricing structures. It has also been studying the reliability of power supplies.

Marvin Fertel, president of the Nuclear Energy Institute, the industry group, said in February that the cold weather in the US early in 2014 had woken regulators up to the importance of the reliability of energy supplies.

When coal piles and handling equipment froze, and gas production was disrupted by the extreme cold, nuclear plants were unaffected.

That lesson, Mr Fertel says, was being acknowledged by generators, regulators and grid operators.

PJM Interconnection, which runs the grid covering a large section of the northern and eastern US, including Illinois, has set out proposals for a plan, called Capacity Performance, to reward companies that supply guaranteed flows of power when needed. Nuclear generators would be among the principal beneficiaries.

Another proposal to help nuclear generation is the plan for a 15-year power purchase agreement in Ohio put forward by FirstEnergy, the Akron-based electricity group. The state's regulators are now assessing the idea, which would commit utilities to buying power from one nuclear and two coal plants owned or part-owned by FirstEnergy.

Carol Browner, who led the US Environmental Protection Agency during Bill Clinton's presidency and was Mr Obama's top adviser on climate and energy policy during 2009-11, last year joined the leadership council of Nuclear Matters, a group backed by Exelon, Dominion, FirstEnergy and other companies that works to raise awareness of the threat to the industry. She supports the campaign, she says, in part because of the role nuclear power plays in holding down US carbon emissions.

"Climate change is the biggest problem the world faces, and we can't just get rid of these carbon-free sources of energy while we figure out how to manage this over not just the next five years, but over the next 25, 50, 100 years."

Contributors

Christopher Adams
Energy editor
Ed Crooks
US industry and energy editor
Pilita Clark
Environment correspondent
Anjli Raval
Oil and gas correspondent
Michael Kavanagh
Energy and utilities reporter
James Wilson
Mining correspondent
Gregory Meyer
Markets reporter
Gavin Jackson
Statistics journalist

Naomi Mapstone
James Simms
Freelance writers

Aban Contractor
Commissioning editor
Steven Bird
Designer
Andy Mears
Picture editor
Chris Campbell
Graphic artist

Industry hopes there is still an enduring market for the black stuff

Coal

Failure to transition to a low-carbon economy offers big mining companies respite, reports *James Wilson*

Coal is the most abundant and obvious energy source in the world, but opponents to its use are more vocal than ever.

It is not just concern at coal's role in creating carbon emissions — and hence climate change — that is a problem for demand. Economics also play a part, with coal's competitiveness against other types of fuel having fallen.

In the US, for example, the emergence of shale gas has meant some coal output has been priced out of the market. Peabody Energy, the US's largest coal miner, says falls in the price of natural gas will cut US coal demand by 60m-80m tons this year. US coal demand last year was close to 920m short tons, says the US Energy Information Administration.

Coal still provides about 30 per cent of global primary energy needs and generates more than 40 per cent of the world's electricity, according to the World Coal Association, the coal miners' industry body. In the world's most populous countries, China and India, the percentage of energy needs met by coal is even higher at about 70 per cent.

The International Energy Agency estimates coal demand will grow by only 0.5 per cent a year up to 2040, compared with 2.5 per cent annually over the past three decades. In the US, coal use will fall by one-third during that period, and even in China — whose voracious demand for coal kept the market buoyant for much of the past decade — a peak could come by 2030, the IEA says.

India Ambitious targets may boost demand

With years of strong growth in China's coal use seemingly slowing, India is emerging as the coal industry's great hope to take up the slack.

India has the world's second-largest population and its economy still relies heavily on coal, which meets well over half of energy demand. The election of Narendra Modi as Prime Minister, seen as a reformer wanting to step up economic growth, is seen as positive for coal use. "The Indian growth story is starting to gain traction," Mike Henry, a senior BHP Billiton executive, told investors last year.

The International Energy Agency (IEA), expects India to become the second-largest coal consumer by 2020, overtaking the US. It also expects that India will overtake China to become the largest importer of thermal coal, used for generating power. How beneficial this is for global coal exporters is likely to depend on how quickly India can improve its domestic coal mining industry.

Coal India, the state-owned miner, is being asked to double output over the next five years — an ambitious target. India may therefore become a much more important global market.

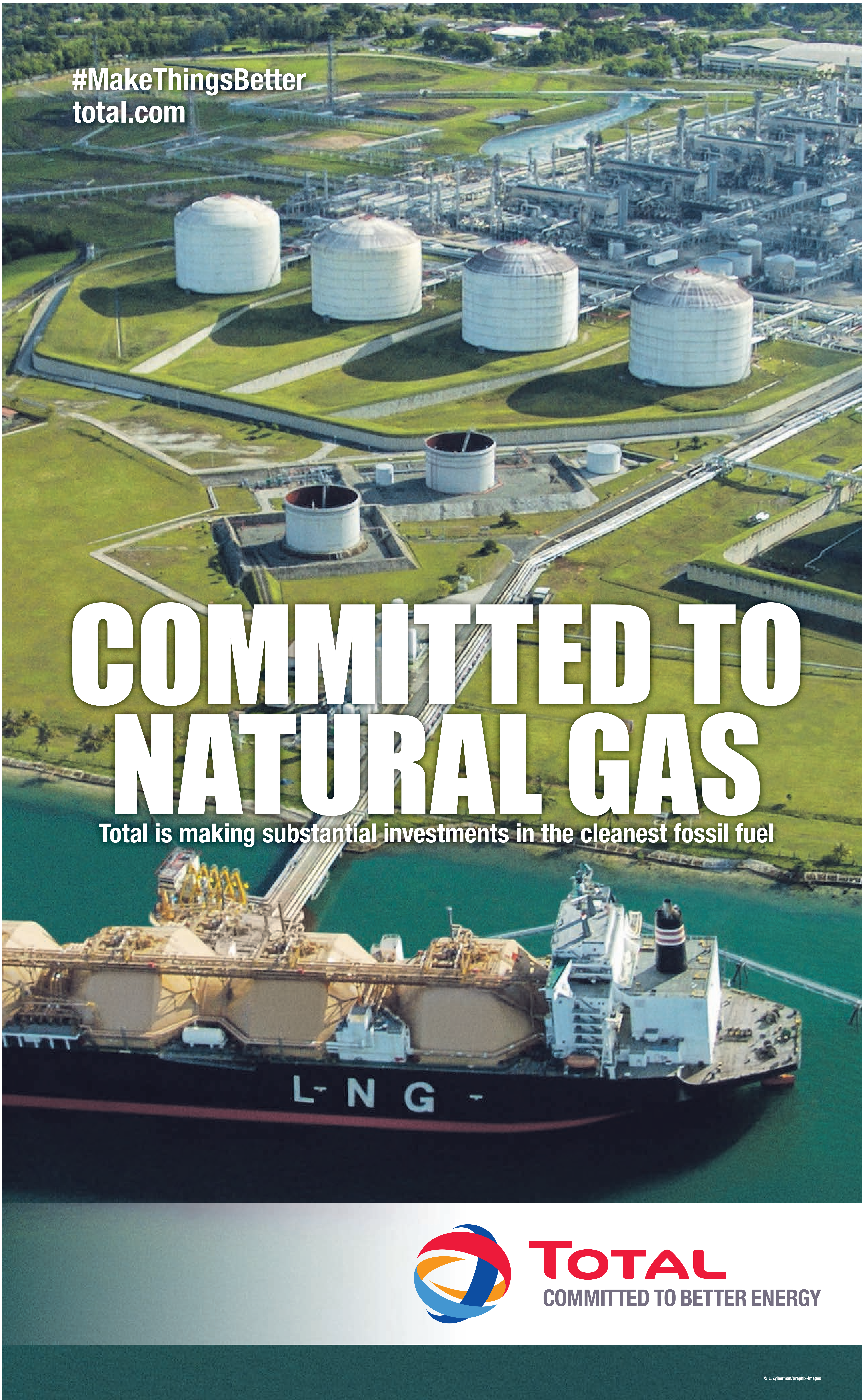
The IEA puts India's rise in coal demand in the next five years at 250 megatons. That is more than is currently consumed by any country other than China, the US and India itself. Yet, as the agency says: "There is no other China out there". **JW**

Indeed, coal consumption in China fell in 2014, with imports down 11 per cent, the first fall in a decade. Economic growth has slowed, while China is also making strenuous efforts to cut coal use to reduce pollution. Coal-fired electricity plants are running at little over half their installed capacity and, combined with abundant supply, this has pushed down global coal prices. Benchmark export thermal coal prices have fallen about 60 per cent from a 2011 peak.

If China is committed to reducing coal use, it will mirror the efforts being made in developed markets. In the US, new rules known as Mercury and Air Toxics Standards, or MATS, are expected to lead to the withdrawal from service of about 60GW of coal-fired generating capacity by 2018. That is about one-fifth of the installed capacity. Even tougher US rules are in the pipeline in the shape of a "Clean Power Plan" by the Environmental Protection Agency. Aimed at cutting carbon emissions from power generation, they could cut US coal demand by a quarter by 2020, but coal companies are fighting hard against the measures, with Peabody saying they are a "major over-reach" by the EPA.

Where does this leave coal miners? Growth in developing countries is still the great hope. Glencore, one of the largest coal miners, points out that Asia's annual demand for coal is still expected to rise by more than 1bn tonnes by 2025 — more than current total global demand for maritime traded thermal coal — with half the expected increase coming from outside China.

Much depends on the pace of transition to a lower-carbon economy. If all the policy changes that have been announced to cut carbon emissions do not take place, demand for coal is expected to be stronger still.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